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VOLUME 5
DATA MANAGEMENT STUDY


APPENDIX E
CONTRACTOR DATA PACKAGE
QUALITY ASSURANCE (QA)

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QUALITY ASSURANCE MANAGEMENT
VOYAGER SPACECRAFT SYSTEM PROJECT

APPROVED BY


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DATA MANAGEMENT AND CONTROL TASK
VOYAGER SPACECRAFT SYSTEM PROJECT

PREPARED FOR

JET PROPULSION LABORATORY
CALIFORNIA INSTITUTE OF TECHNOLOGY
4800 OAK GROVE DRIVE
PASADENA, CALIFORNIA

UNDER JPL CONTRACT NO. 951112

GENERAL  ELECTRIC

MISSILE AND SPACE DIVISION
Valley Forge Space Technology Center
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INTRODUCTION

This appendix presents the Contractor Data Package (Data Item Matrix, Data Requirement Descriptions, User Flow Diagram, Document Relationship Tree, and Frequency and Phasing Charts) for Quality Assurance (QA).

These data include control and review procedures to ensure that component, subsystem, and system design, manufacture, assembly, and testing will produce items that meet the established specifications. This category also includes manufacturing verification tests to obtain quality assurance.

The complete list of Contractor Data Package appendixes is-as follows:

- Appendix A - Technical Description and System Engineering (SE)
- Appendix B - Planetary Quarantine (PQ)
- Appendix C - Manufacturing (MG)
- Appendix D - Configuration Management (CM)
- Appendix E - Quality Assurance (QA)
- Appendix F - Test (TE) and Mission Operations (MP)
- Appendix G - Reliability Assurance (RA)
- Appendix H - Logistics and Support (LS)
- Appendix I - Overall Management (MA), Scheduling (SC), Manning and Financial (MF)
- Appendix J - Procurement and Contracting (PC)
- Appendix K - Data Management (DM)
- Appendix L* - Facilities (FA)
- Appendix M* - Safety (SA)
- Appendix N* - Site Activation **for** Launch (AL)

* Appendixes L through Q prepared under Contract NAS 7-584

Appendix O* - Science (SI)

Appendix P* - Related Project Interfaces (RP)

Appendix Q* - Advanced Missions (AM)

*** Appendixes L through Q prepared under Contract NAS 7-584**

	1 of 4	
DATA ITEM NUMBER	DATA ITEM	DESCRIPTION
	<u>QUALITY ASSURANCE</u>	
	<u>MANUALS</u>	
QA-003	Manual, Instrument Calibration and Maintenance	An approved set of procedures for calibration cycle instruments so that reliable data and confidence can be gained.
QA-004	Manual, Quality Assurance Operating Procedures	Formalizes the specific requirements of the Quality Assurance established operations procedures.
QA-005	Manual, Special Test Equipment, Component	Controls and maintains the equipment current, performance requirements.
QA-006	Manual, Workmanship Standards	Provides visual aids and standards jointly selected for use during the program.
	<u>MINUTES</u>	
QA-007	Minutes, Material Review Board	Minutes of formal meetings of the Material Review Board.
	<u>PLANS</u>	
QA-008	Plan, Inspection	Documents the specific parameters of inspection and the required quality levels in fabrication, assembly, and test.
QA-009	Plan, Quality Assurance Program	The system contractor's total quality plan which meets contractual requirements.
QA-010	Plan, Sampling	Documents and controls the sample size necessary to achieve the required quality levels.
QA-011	Plan, Test and Operating, for Special Test Equipment (STE), Component	A detailed checkout and operating procedure for test equipment to ensure integrity and confidence in the test results. In process of development.

* KEY INFORMAL DATA

.DATA ITEM LIST/USER MATRIX

	APPLICABILITY TO FUNCTIONAL USERS AT CONTRACTOR LEVEL															
	SE	PQ	MG	CM	QA	TE	RA	LS	MA	SC	PC	MF	MP	DM	FA	SA
and maintenance cycles for be maintained in the opera-	-	-	-	-	A	U	-	-	-	-	-	-	-	-	-	-
Assurance Plan into	-	-	U	-	A	U	U	-	-	-	-	-	-	-	-	U
sitated by design and per-	-	-	-	-	A	U	-	-	-	-	-	-	-	-	-	-
7 contractor and customer	-	-	A	-	R	-	U	-	-	-	-	-	-	-	-	-
oard (MRB).	U	-	U	-	R	U	U	-	U	-	U	-	-	-	-	-
the tolerances to maintain and configuration.	-	-	U	-	A	U	-	-	U	-	-	-	-	-	-	-
ts all the customer con-	U	U	U	-	R	U	R	-	PM	-	U	-	-	-	-	-
maintain acceptance	U	U	U	-	A	-	U	-	-	-	-	-	-	-	-	-
equipment to maintain inte- est of hardware using bench	U	-	-	-	A	R	U	-	-	-	-	-	-	-	-	U

U - USE

R - REVIEW AUTHORITY

A - APPROVAL AUTHORITY

PM - PROJECT MANAGER APPROVAL

				APPLICABILITY AT SUBCONTRACTOR LEVELS	APPLICABILITY TO PROJECT BOARDS															
AL	SI	RP	AM	PRINCIPAL SUB-CONTRACTORS	MAJOR SUB-CONTRACTORS	KEY SUBCON AND VENDORS	OTHER VENDORS	KEY SUPPLIERS	KEY SUBSUPPLIERS	CONFIGURATION CONTROL	CONFIGURATION MANAGEMENT	DATA REVIEW	DESIGN REVIEW	FAILURE REVIEW	INTEGRATED SAFETY	INTEGRATED TEST	MAKE OR BUY	MATERIAL REVIEW	SOURCE EVALUATION	SOURCE SELECTION
U	-	-	-	S	S	S	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-
U	-	-	-	C/S	C/S	C/S	NA	C/S	NA	-	-	-	-	-	-	-	-	-	-	-
U	-	-	-	S	S	S	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-
U	-	-	-							-	-	-	-	-	-	U	-	-	-	-
-	-	-	-	(S)	(S)	(S)	NA	(S)	NA	-	-	-	-	-	-	U	-	A	-	-
-	-	-	-	S	S	S	NA	(S)	(S)	-	-	-	-	-	-	-	-	-	-	-
U	U	-	-	S	S	S	S	S	S	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	S	S	S	S	S	S	-	-	-	-	-	-	U	-	-	-	-
-	U	-	-	S	S	(S)	NA	NA	NA	-	-	-	-	-	-	R	-	-	-	-

- PREPARED BY CONTRACTOR

S - PREPARED BY SUBCONTRACTOR/VENDOR/SUPPLIER

() - OPTIONAL APPLICATION

NA - NOT APPLICABLE

2-2-2

DATA ITEM NUMBER	DATA ITEM 2 of 4	DESCRIPTION
	<u>QUALITY ASSURANCE</u>	
	<u>PROCEDURES</u>	
QA-012	Procedure, Process Control	Essential process controls needed to supplement the procedure.
QA-013	Procedure, Test/Inspection	Specific test and inspection procedures to be performed by contractor.
QA-014	Procedure, Rework	
QA-015	Procedure, Area Control	
	<u>RECORDS</u>	
QA-016	Record, Calibration	
QA-017	Record, Shelf Life	
QA-018	Record, Tool and Gauge Usage	
QA-019	Record, Test (Materials, Parts, Sub-Assemblies)	
QA-001	Logbook, Component	A chronological and historical record used in review status , solving of anomalies and verifying acceptance component requirements.
QA-002	Logbook, Vehicle	To verify to the customer the chronological and historical record for the vehicle presented for buy-off.

* KEY INFORMAL DATA

DATA ITEM LIST/USER MATRIX

	APPLICABILITY TO FUNCTIONAL USERS AT CONTRACTOR LEVEL															
	SE	PQ	MG	CM	QA	TE	RA	LS	MA	SC	PC	MF	MP	DM	FA	SA
est and inspection	-	-	U	-	A	-	-	-	U	-	-	-	-	-	-	U
ed by the system	-	U	U	-	A	U	U	-	U	-	-	-	-	-	-	U
	-	-	U	-	A	-	-	-	-	-	-	-	-	-	-	-
	-	R	U	-	R	U	U	U	PM	-	-	-	-	-	-	U
	-	-	-	-	A	U	-	-	-	-	-	-	-	-	-	-
	-	U	U	-	A	U	U	-	-	-	-	-	-	-	-	-
	-	-	U	-	A	-	-	-	-	-	-	-	-	-	-	-
	-	-	U	-	A	U	-	-	-	-	-	-	-	-	-	-
ng component criteria for the	-	-	-	-	A	U	R	-	-	-	-	-	-	-	-	-
rical acceptance	U	-	-	-	A	R	R	R	R	-	U	-	U	-	-	-

U - USE

R - REVIEW AUTHORITY

A - APPROVAL AUTHORITY

PM - PROJECT MANAGER APPROVAL

				APPLICABILITY AT SUBCONTRACTOR/VENDOR/SUPPLIER LEVELS						APPLICABILITY TO PROJECT BOARDS											
				PRINCIPAL SUB-CONTRACTORS	MAJOR SUB-CONTRACTORS	KEY SUBCON AND VENDORS	OTHER VENDORS	KEY SUPPLIERS	KEY SUBSUPPLIERS	CONFIGURATION CONTROL	CONFIGURATION MANAGEMENT	DATA REVIEW	DESIGN REVIEW	FAILURE REVIEW	INTEGRATED SAFETY	INTEGRATED TEST	MAKE OR BUY	MATERIAL REVIEW	SOURCE EVALUATION	SOURCE SELECTION	
AL	SI	RP	AM																		
-	-	-	-	S	S	S	(S)	S	(S)	-	-	-	-	-	-	-	-	U	-	-	
-	-	-	-	S	S	S	(S)	S	(S)	-	-	-	-	-	-	U	-	-	-	-	
-	-	-	-	S	S	S	(S)	S	(S)	-	-	-	-	-	-	-	-	U	-	-	
-	-	-	-	(S)	(S)	(S)	NA	(S)	(S)	-	-	-	-	-	-	U	-	-	-	-	
-	-	-	-	S	S	S	(S)	(S)	(S)	-	-	-	-	-	-	U	-	-	-	-	
-	-	-	-	(S)	(S)	(S)	(S)	(S)	(S)	-	-	-	-	-	-	U	-	-	-	-	
-	-	-	-	(S)	(S)	(S)	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-	
-	-	-	-	S	S	S	S	S	S	-	-	-	-	-	-	U	-	-	-	-	
-	-	-	-	S	S	S	S	S	S	-	-	-	-	-	-	U	-	-	-	-	
-	U	-	-	NA	NA	NA	NA	NA	NA	-	-	-	-	-	-	R	-	-	-	-	

- PREPARED BY CONTRACTOR

S - PREPARED BY SUBCONTRACTOR/VENDOR/SUPPLIER

() - OPTIONAL APPLICATION

NA - NOT APPLICABLE

2-4-2

~~2-4-2~~

DATA ITEM NUMBER	3 of 4	
	DATA ITEM	DESCRIPTION
	<u>QUALITY ASSURANCE</u>	
	<u>REPORTS</u>	
QA-020	*Report, Failure Analysis	Documentation of the investigatory analysis of nonconformance problem cause, and prevention.
QA-021	*Report, Nonconforming Material (NCMR)	A document to report nonconformance in fabrication assembly, and inspection and the cause, corrective action and disposition.
QA-022	*Report, Process Trends	Identifies shifts in quality levels during processes so corrective action can be taken.
QA-023	*Report, Quality Audit	Measures the level of compliance in all areas of fabrication assembly and test to the governing quality document.
QA-024	*Report, Quality Status	A report of the system contractor's quality performance; submitted to the customer.
QA-025	Report, Special Measurement and Test Equipment Evaluation (Component)	A special capability study of test equipment to verify accuracy and confidence in test and inspection results.
QA-026	Report, Quality Assurance Audit Summary	Summary of the audits verifying compliance in fabrication testing, inspection, to specific control documents.
QA-027	Report, Quality Assurance Trend Summary	Summarization of QA trend reports to determine any quality levels and to emphasize corrective action.
QA-028	Report, Break of Inspection	Identifies the break of inspection event which causes processing to be stopped and verifies that all material and a component is maintained as prime.
QA-029	*Report, Failure Categorization	An analysis report categorizing failures and assigning responsibility for failures to design, component, fabrication, or test.
QA-030	Report, Qualification Status	Reports the status of the type approval (TA) program to the customer.

* KEY INFORMAL DATA

DATA ITEM LIST/USER MATRIX

	APPLICABILITY TO FUNCTIONAL USERS AT CONTRACTOR LEVEL															
	SE	PQ	MG	CM	QA	TE	RA	LS	MA	SC	PC	MF	MP	DM	FA	SA
formance,	U	U	U	-	R	U	A	-	U	-	-	-	-	-	-	U
test, ction,	-	-	U	-	A	U	U	-	U	-	-	-	-	-	-	-
that	U	-	U	-	A	-	U	-	U	-	-	-	-	-	-	-
cation,	U	-	U	-	A	U	U	-	U	-	U	-	-	-	-	U
ne	U	-	U	-	A	U	U	U	U	-	U	-	-	-	-	-
integrity	U	U	-	-	A	R	-	-	-	-	U	-	-	-	-	-
ction,	U	U	U	-	A	U	U	-	U	-	U	-	-	-	-	-
shifts in	U	-	U	-	A	-	U	-	U	-	U	-	-	-	-	-
hardware l within	-	U	-	-	A	U	-	-	-	-	-	-	-	-	-	-
responsibility t.	-	-	U	-	A	R	U	-	U	-	-	-	-	-	-	-
to the	U	-	U	-	A	R	U	-	U	-	U	-	-	-	-	-

U - USE

R - REVIEW AUTHORITY

A - APPROVAL AUTHORITY

PM - PROJECT MANAGER APPROVAL

				APPLICABILITY AT SUBCONTRACTOR/VENDOR/SUPPLIER LEVELS							APPLICABILITY TO PROJECT BOARDS											
				PRINCIPAL SUB-CONTRACTORS	MAJOR SUB-CONTRACTORS	KEY SUBCON AND VENDORS	OTHER VENDORS	KEY SUPPLIERS	KEY SUBSUPPLIERS	CONFIGURATION CONTROL	CONFIGURATION MANAGEMENT	DATA REVIEW	DESIGN REVIEW	FAILURE REVIEW	INTEGRATED SAFETY	INTEGRATED TEST	MAKE OR BUY	MATERIAL REVIEW	SOURCE EVALUATION	SOURCE SELECTION		
U	U	-	-	S	S	S	NA	(S)	(S)	-	-	-	-	R	-	U	-	U	-	-		
U	-	-	-	S	S	S	S	S	S	-	-	-	-	-	-	U	-	U	-	-		
-	-	-	-	S	S	(S)	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-		
U	-	-	-	S	S	S	NA	(S)	NA	-	-	-	-	-	-	U	-	U	-	-		
-	-	-	-	S	S	S	NA	(S)	NA	-	-	-	-	-	-	U	-	-	-	-		
-	-	-	-	S	S	(S)	NA	NA	NA	-	-	-	-	-	-	U	-	-	-	-		
-	-	-	-	NA	NA	NA	NA	NA	NA	-	-	-	-	-	-	-	-	U	-	-		
U	-	-	-	NA	NA	NA	NA	NA	NA	-	-	-	-	-	-	-	-	-	-	-		
-	-	-	-	S	S	S	NA	(S)	(S)	-	-	-	-	-	-	U	-	-	-	-		
u	-	-	-	S	S	S	NA	NA	NA	-	-	-	-	-	-	R	-	-	-	-		
-	-	-	-	(S)	NA	NA	NA	NA	NA	-	-	-	-	-	-	U	-	U	-	-		

- PREPARED BY CONTRACTOR

S - PREPARED BY SUBCONTRACTOR/VENDOR/SUPPLIER

() - OPTIONAL APPLICATION

NA - NOT APPLICABLE

2-6-2

■ ■

U - USE R - REVIEW AUTHORITY A - APPROVAL AUTHORITY PM - PROJECT MANAGER APPROVAL

[illegible]

NA - NOT APPLICABLE

2-7/8

USER FLOW DIAGRAMS

The Quality Assurance Data User Flow Diagrams were developed to show the quality activities and required data items on Voyager to meet customer requirements (NPC 200-2, 3, 4) and the needs of a long-life space system quality program. Interfaces with the systems office, the contractor Voyager project, and procurement sources have been indicated from contract award through launch. The quality assurance data items shown in the diagrams agree with Voyager data item lists.

Early attention is devoted to the quality assurance program plan, conducting special quality system studies, and obtaining rapid integration of major subcontractor quality programs into the prime contractor quality assurance system; Continuous from the systems design phase through launch, key quality activities are:

SDR through PDR

- e Develop parts qualification plan
- e Review specifications and drawings
- e Initiate training program
- Monitor breadboard activities
- e Establish procurement source (supplier) evaluation system

PDR through HDR

- e Begin parts and process qualifications
- e Finalize Quality Assurance Operating Procedures Manual
- e Initiate component special test equipment design
- e Calibrate tools and gages
- e Continue certification of personnel
- Establish QA engineer residents at major subcontractors
- Monitor model fabrication and tests

MDR through CDR

- Continue test plan development
- Conduct failure analyses
- e Inspect engineering model procurement, fabrication and tests
- e Conduct audits
- e Review purchase requisitions for TA and PTM hardware

CDR through FACI

- o* Update procedures and processes
- o* Update component STE
- o* Continue STE, tool and gage calibrations
- Inspect TA and PTM fabrication and tests
- o* Review process trends and conduct failure analyses
- o* Compile documentation, including deviation data for FACI

FACI through MAR

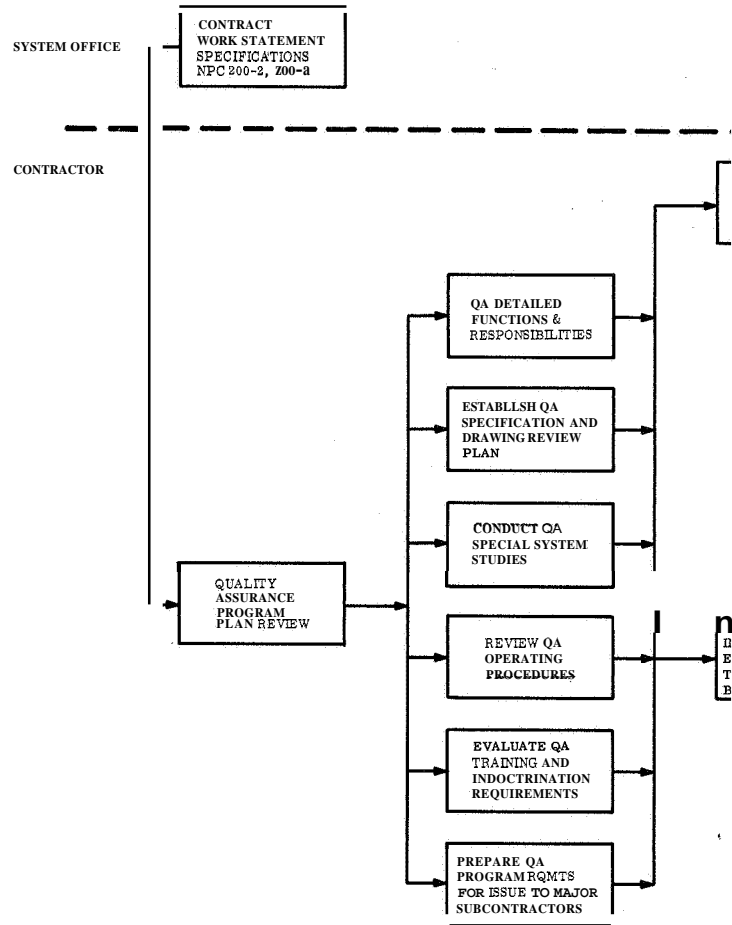
- o* Prepare launch operations QA plan
- o* Implement defect preventive measures evolving from FACI
- o* Perform FA and OSE in-process inspection test and certification
- o* Conduct failure analyses
- o* Compile Mission Acceptance Review documentation
- o* Review status of each vehicle

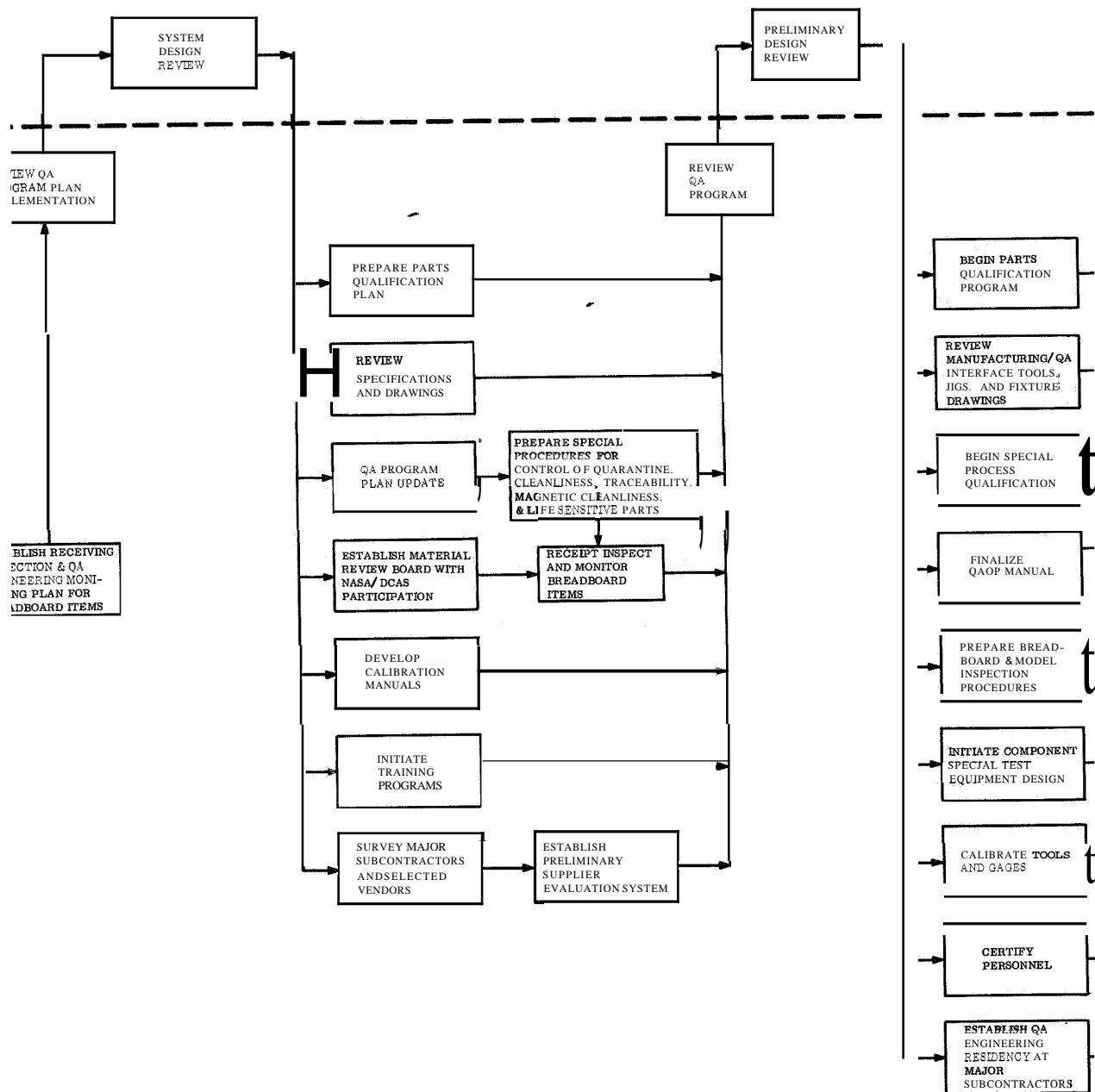
MAR through Launch

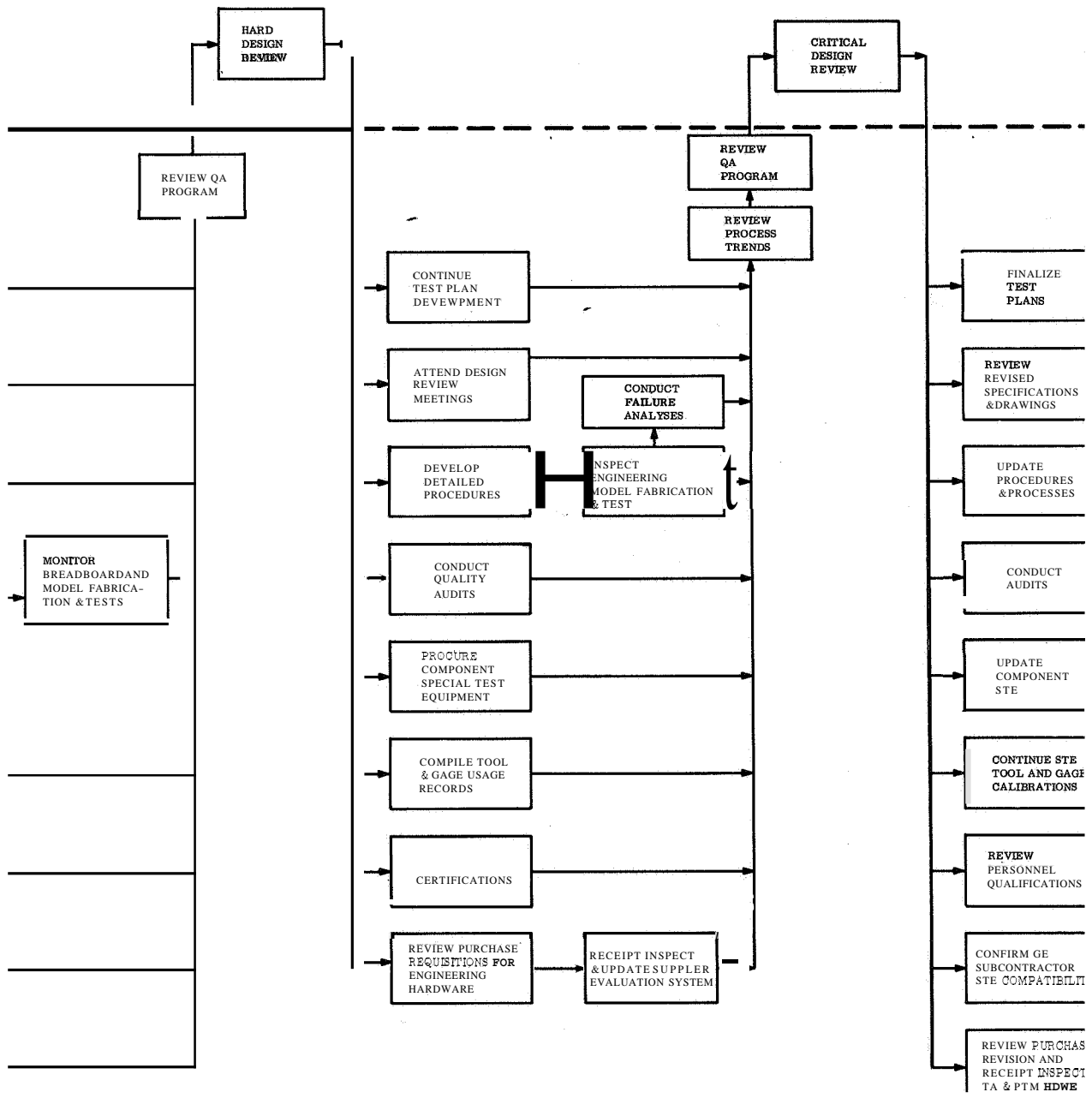
- o* Inspect shipments of FA, OSE and STE
- o* Receipt inspection at launch site
- o* Monitor pre-launch tests
- o* Provide QA data for problem solving areas

Quality Assurance User Flow Diagrams

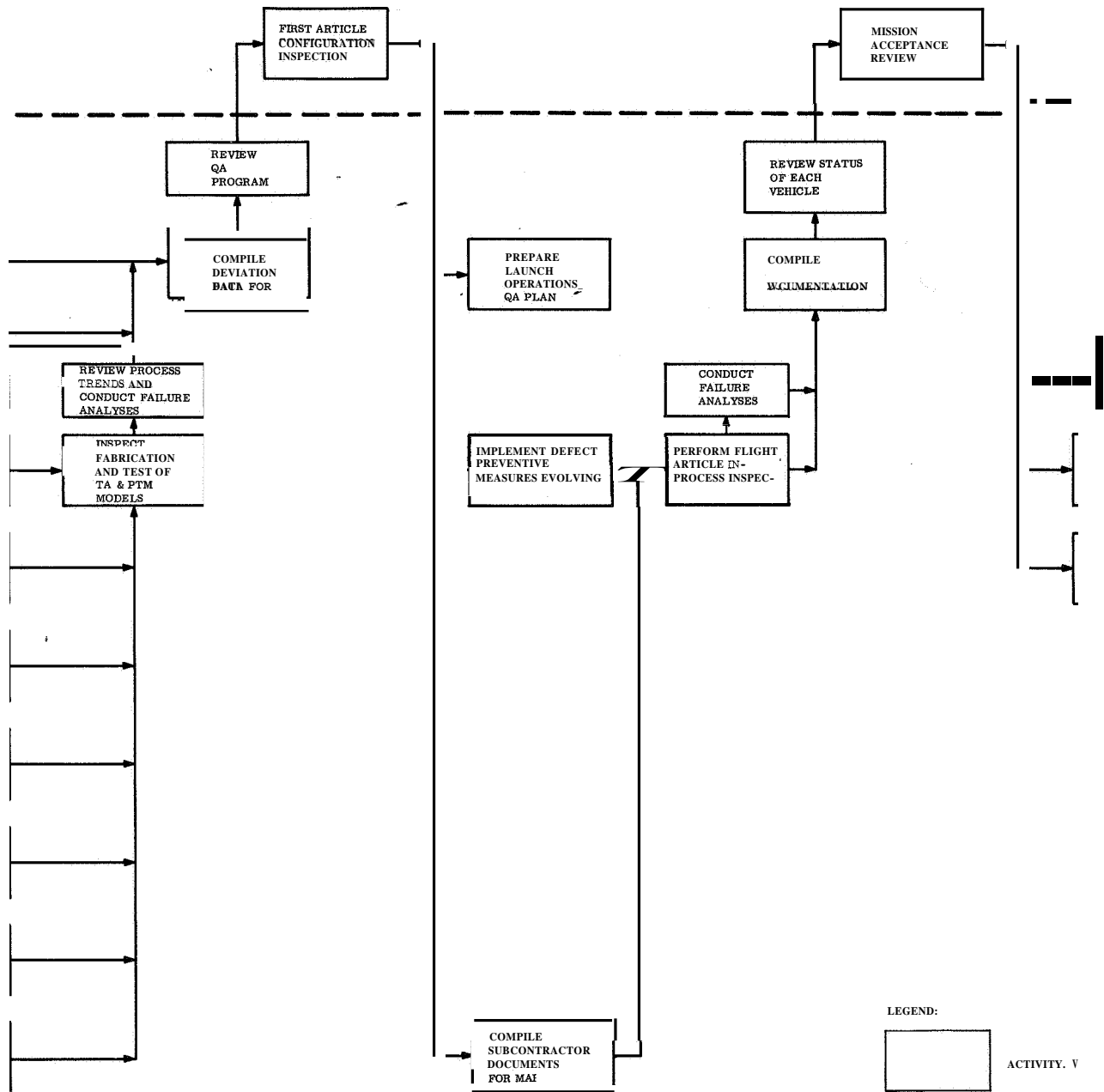
<u>Figure Number</u>	<u>Title</u>
E-1	Quality Assurance User Flow Diagram – Summary
E-2	Quality Assurance User Flow Diagram – Contract Award Through Preliminary Design Review
E-3	Quality Assurance User Flow Diagram – Preliminary Design Review Through Critical Design Review
E-4	Quality Assurance User Flow Diagram – Critical Design Review Through Launch (2 sheets)



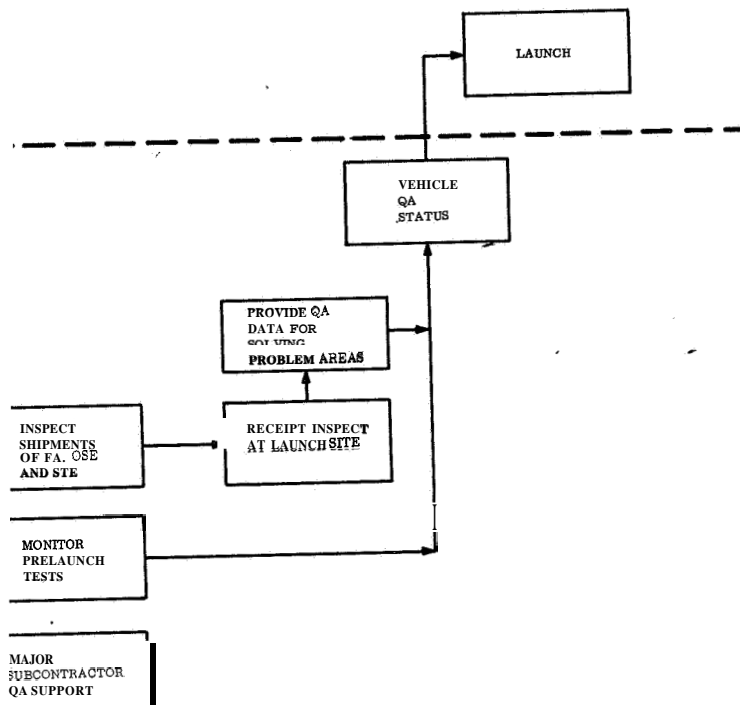




3-6-2



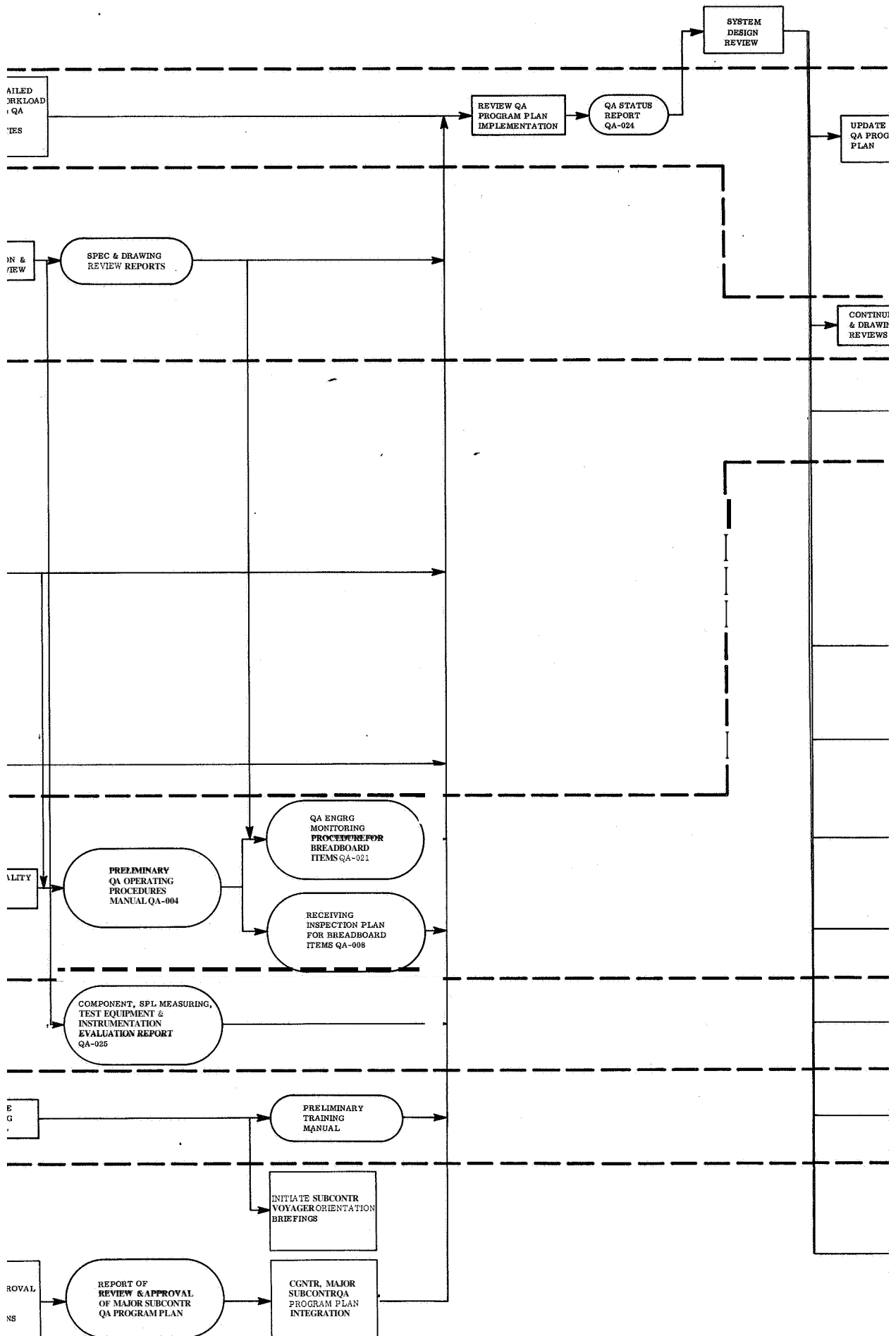
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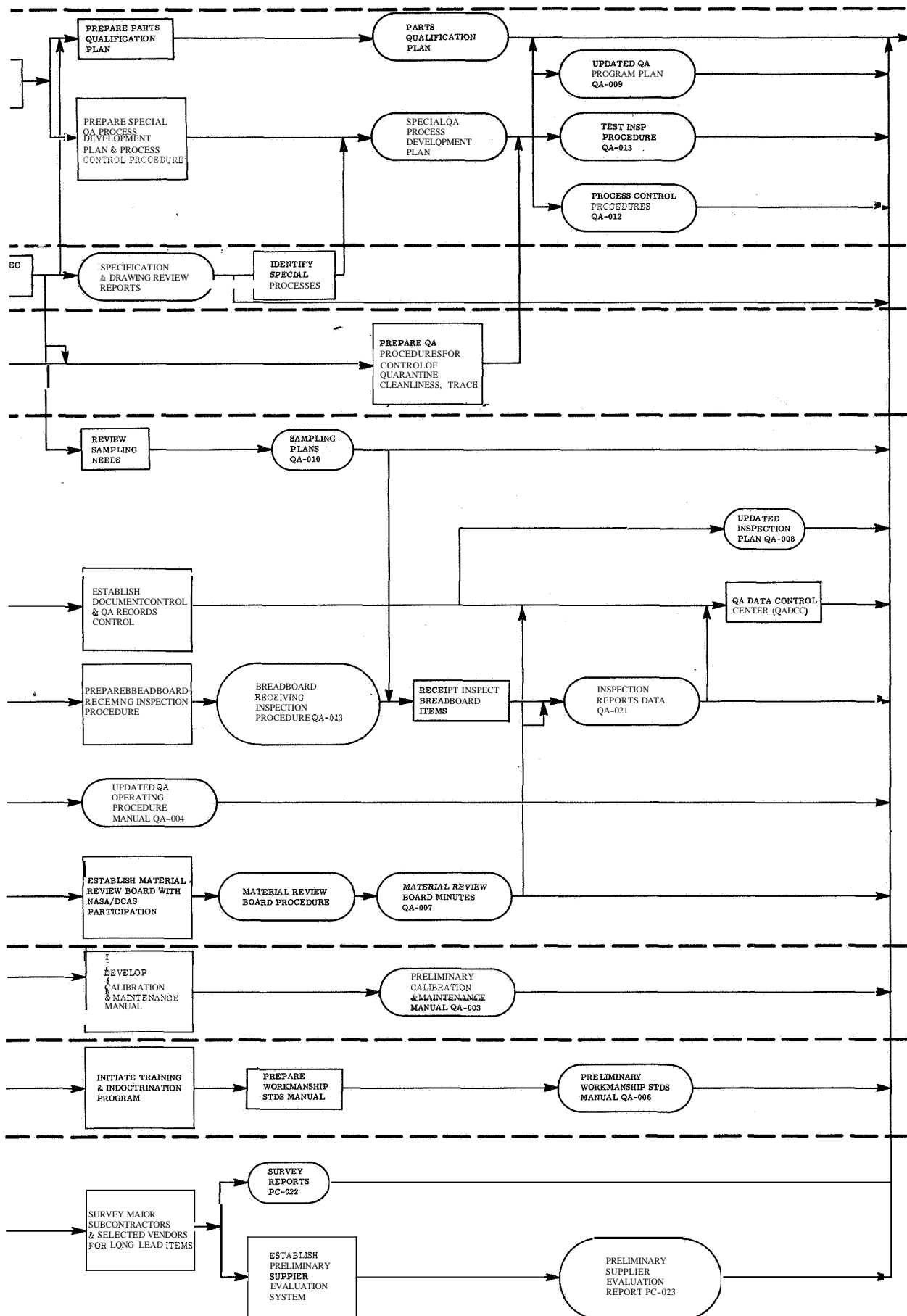


WITH DESCRIPTION INSIDE

Figure E-1. Quality Assurance User Flow Diagram - Summary

3-6-4





3-8-2

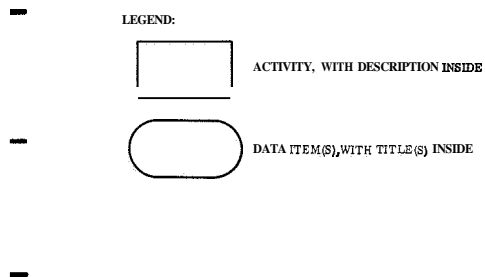
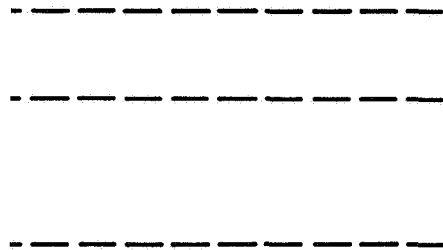
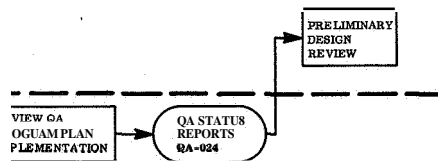
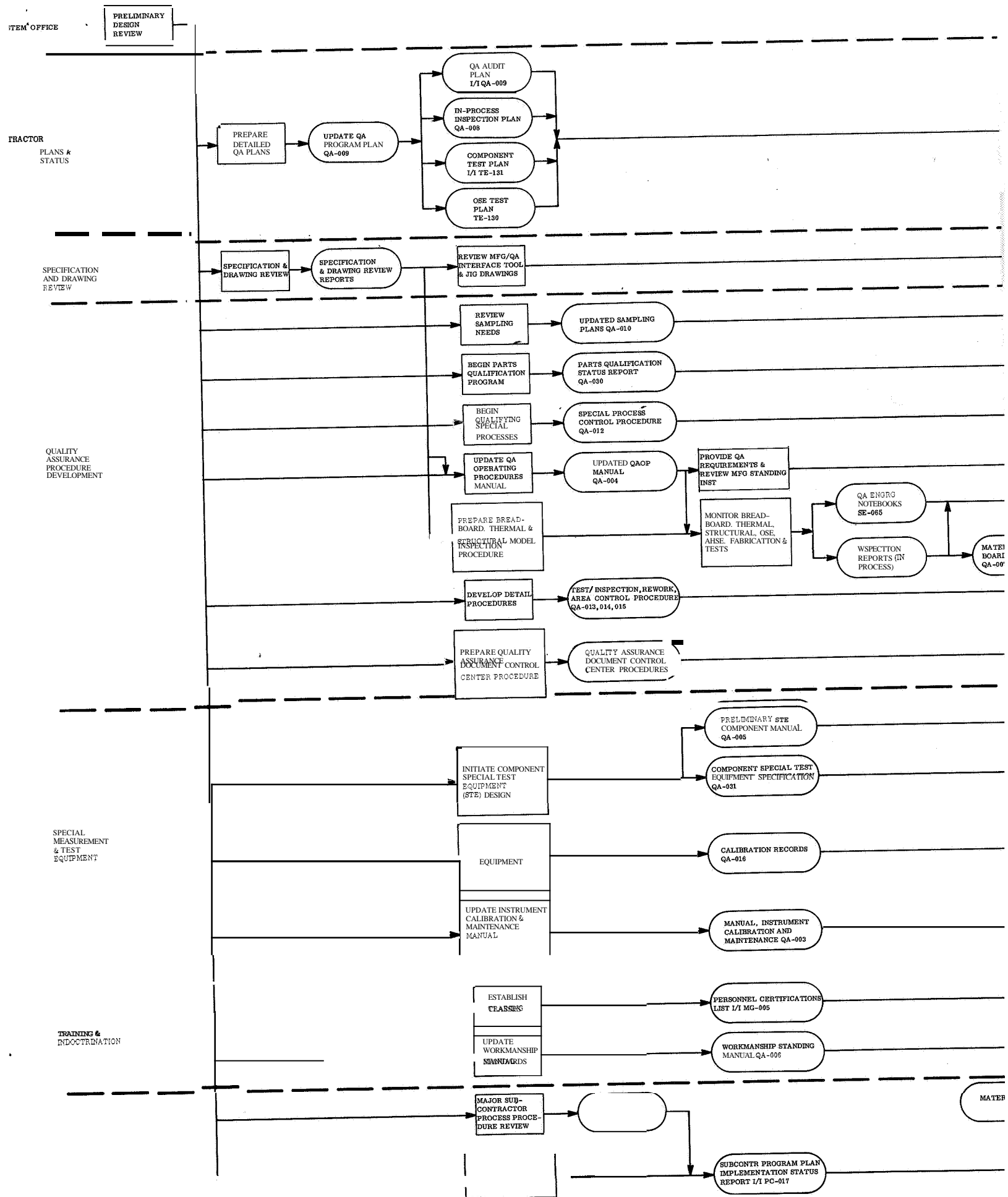
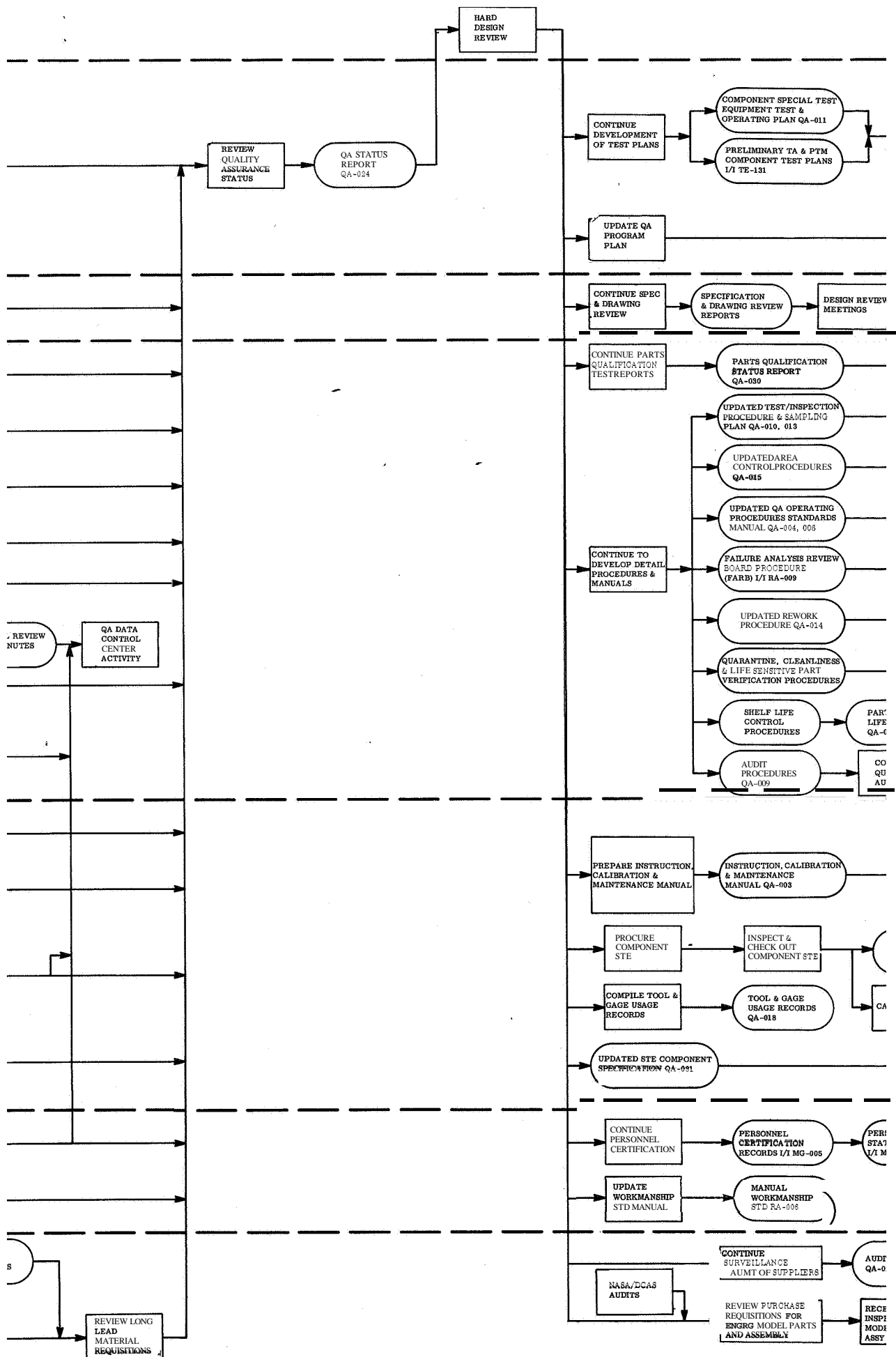
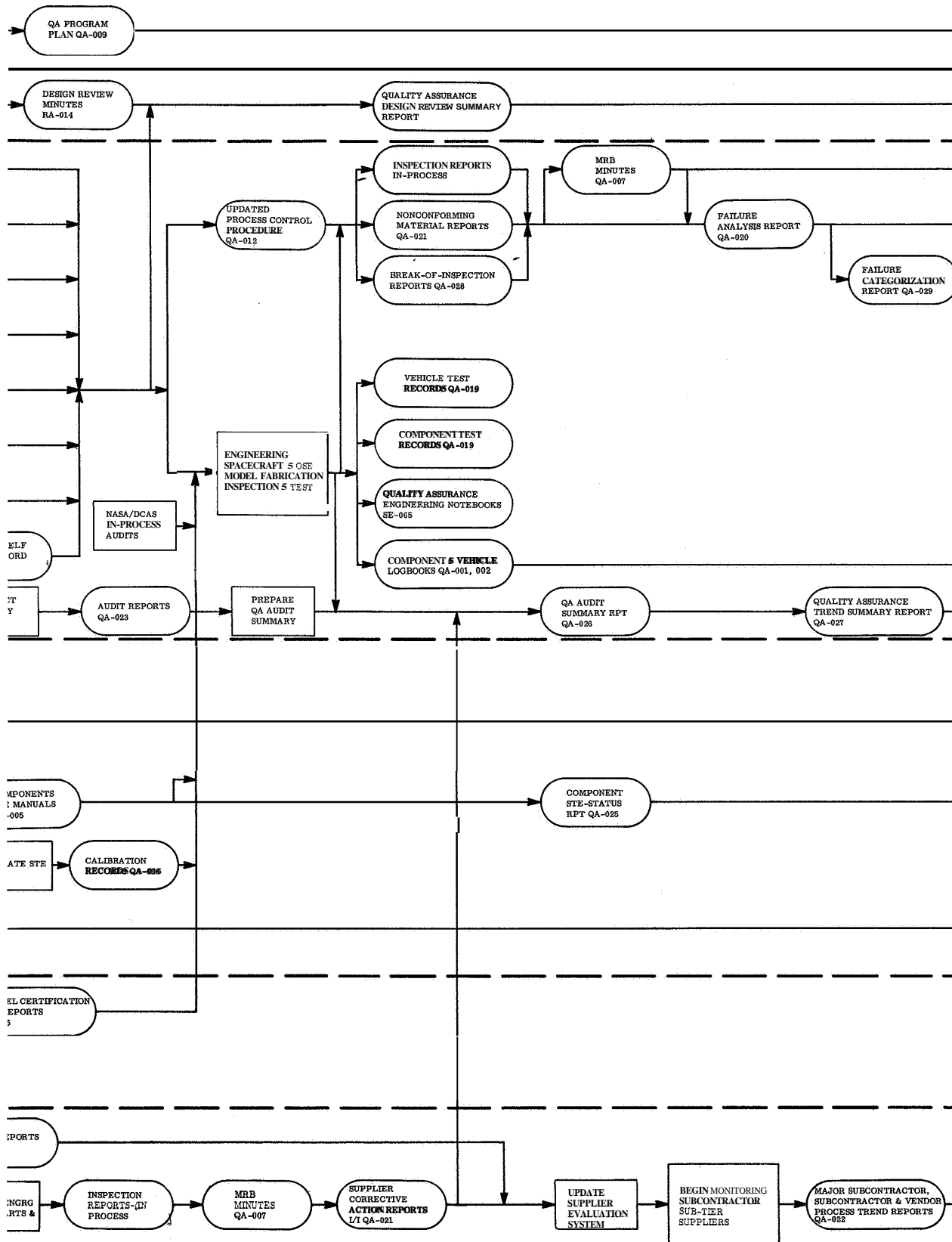


Figure E-2. Quality Assurance User Flow Diagram - Contract Award Through Preliminary Design Review





3-10-1



3-10-2

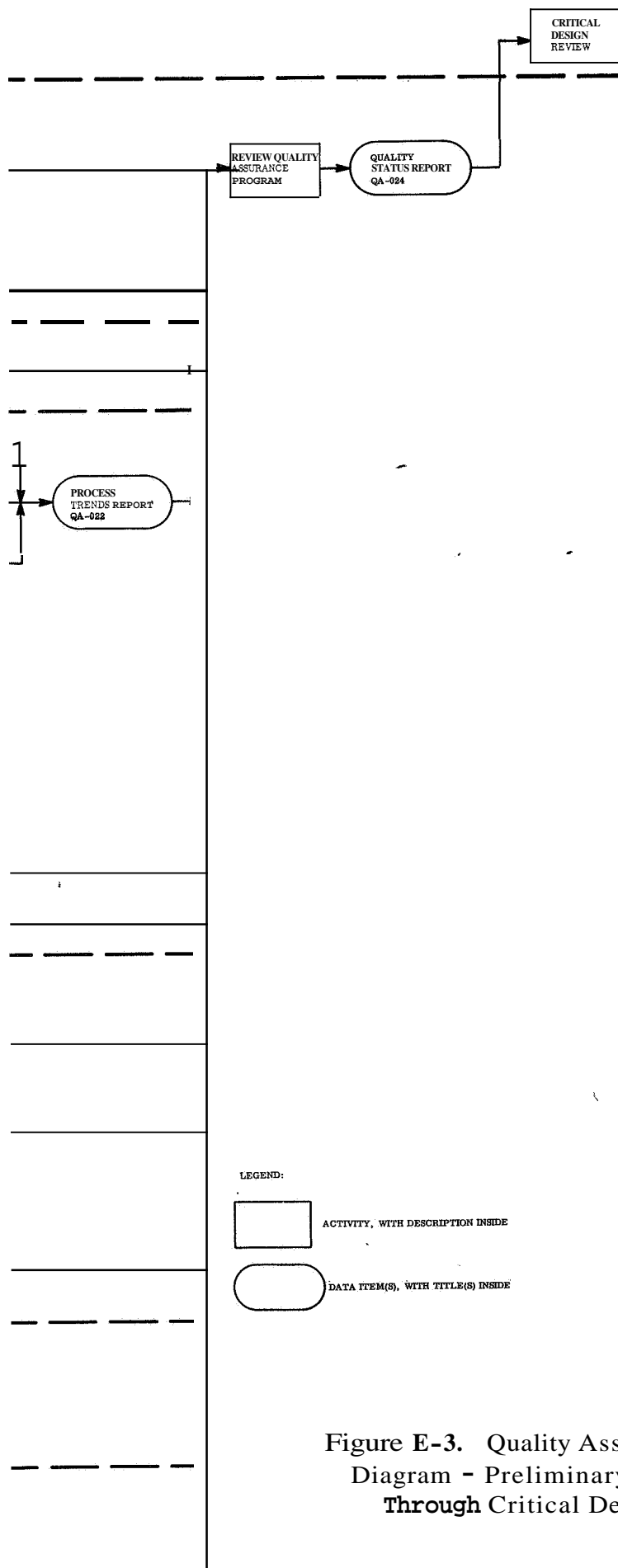
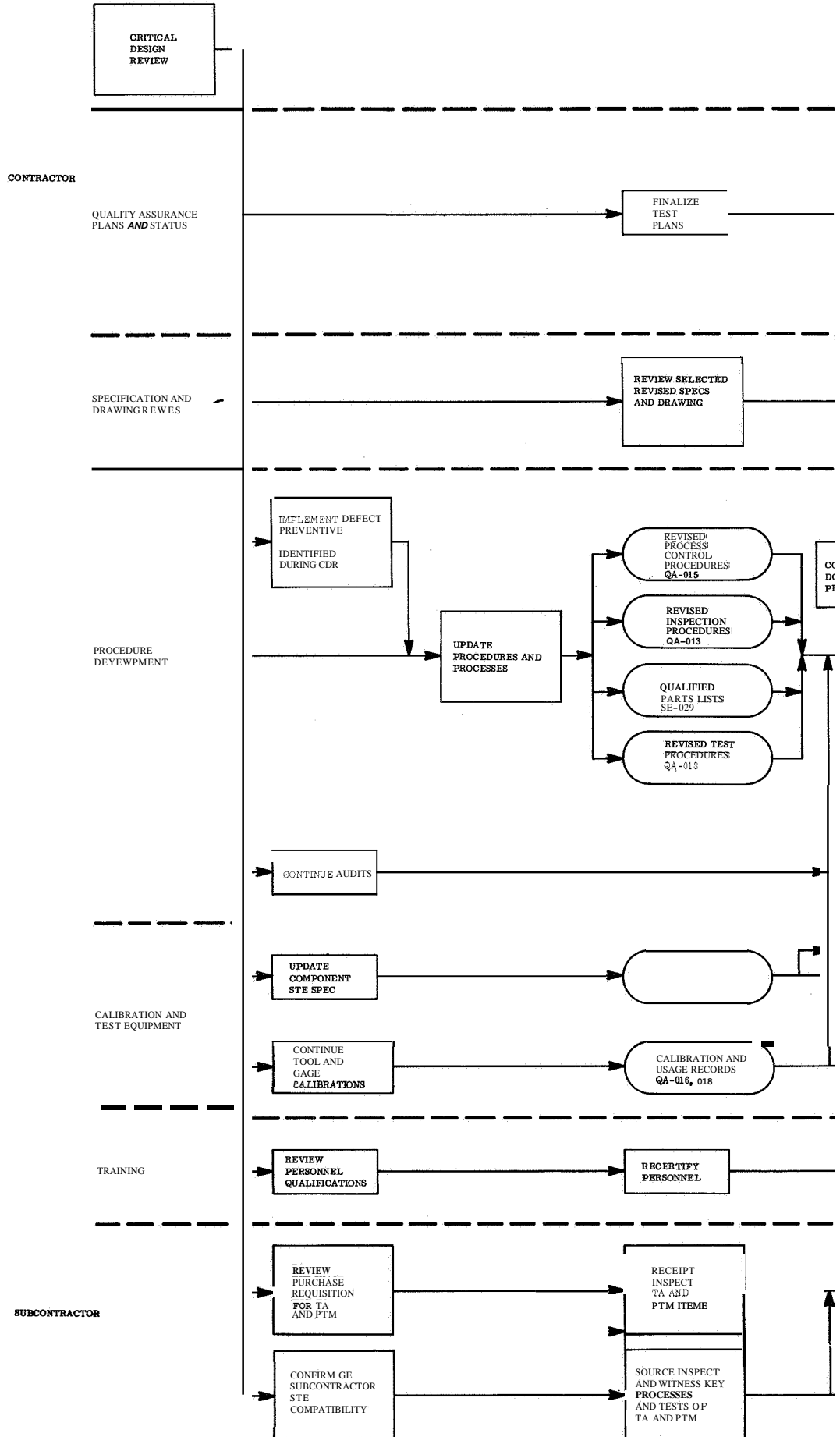
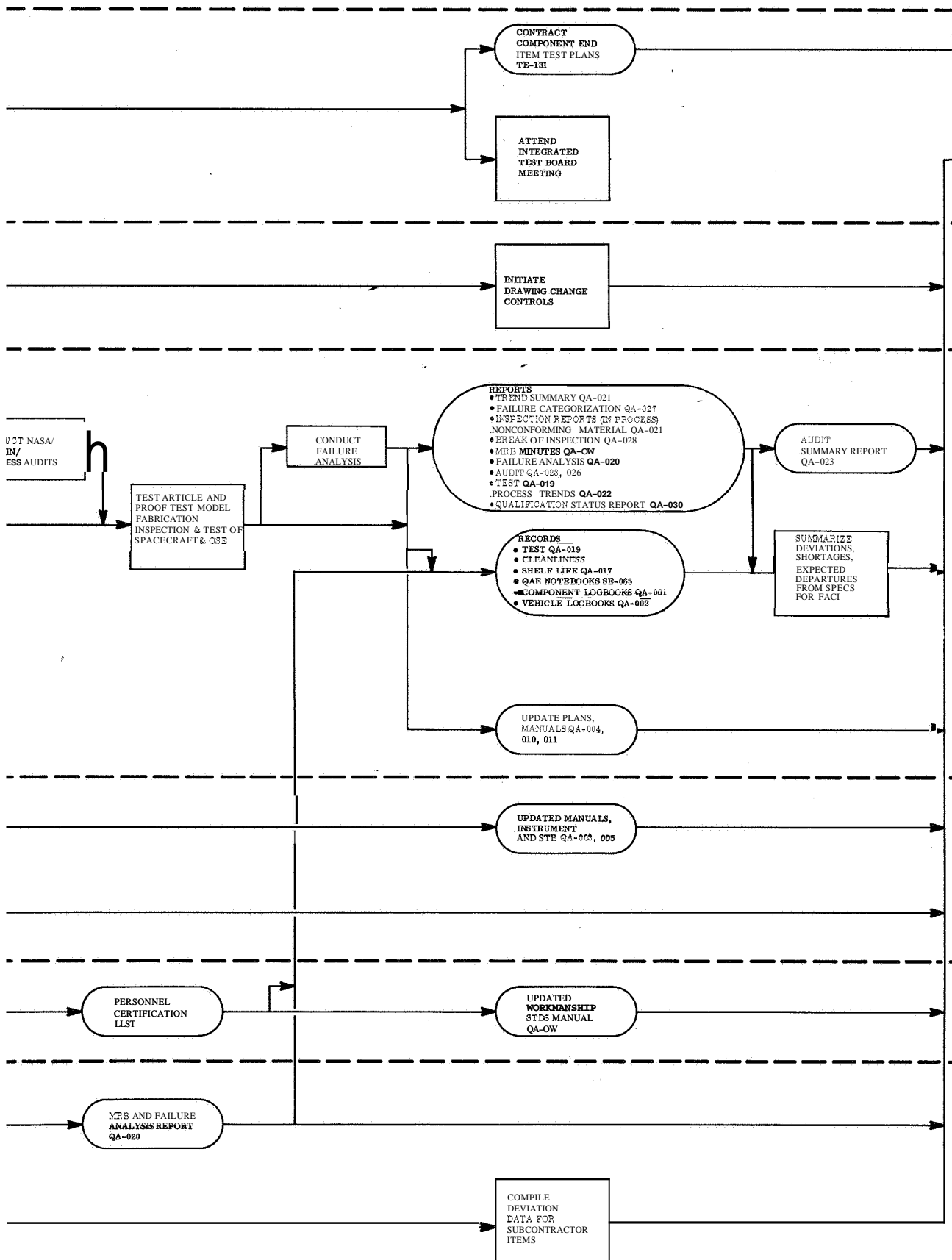


Figure E-3. Quality Assurance User Flow Diagram - Preliminary Design Review Through Critical Design Review

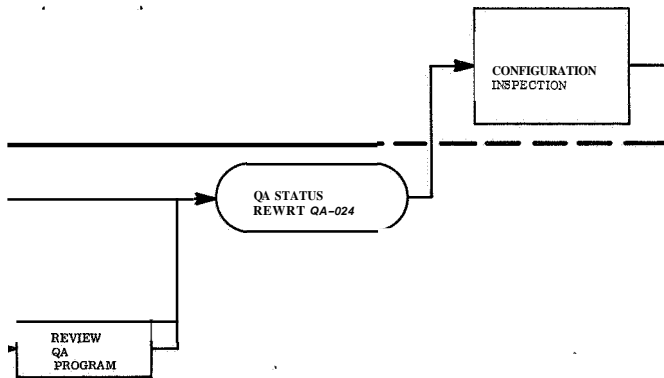
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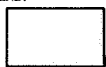




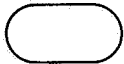
3-12-1



LEGEND:



ACTIVITY, WITH DESCRIPTION INSIDE



DATA ITEM(S), WITH TITLE(S) INSIDE

Figure E-4. Quality Assurance User Flow Diagram - Critical Design Review Through Launch (Sheet 1 of 2)

SYSTEM OFFICE

FIRST
ARTICLE
CONFIGURATION
INSPECTION

QA STATUS
REPORT QA-024

WNTACTOR

QUALITY ASSURANCE
PLANS AND STATUS

DEVELOP LAUNCH
OPERATIONS
QA PLANS

LAUNCH
OPERATIONS
QA PLAN QA-009

SPECIFICATION AND
DRAWING REVUES

PARTICIPATE IN
CONFIGURATION
CHANGE BOARD
MEETINGS

HARDWARE STATUS
CONFIGURATION
CHANGES REPORT
CM-042

PROCEDURE
DEVELOPMENT

PREPARE
LAUNCH
OPERATIONS
RECEIVING
INSPECTION
PROCEDURES

LAUNCH-OPERATIONS
INSPECTION
PROCEDURES
QA-013

QUALIFICATION
STATUS REPORT
QA-030

CONDUCT PARTS
LIFE TEST

PARTS LIFE
TEST REPORTS
VI TE-168

ANALYSIS
FAILURE

IMPLEMENT
DEFECT
PREVENTION
RECOMMENDATIONS
EVOLVING
FROM FACI

PERFORM IN-
PROCESS
INSPECTION
AND TESTS
FOR FLIGHT
ARTICLES

LOGBOOKS, BREAK OF
INSPECTION, FAILURE
CATEGORIZATION QA RPTS,
RECORDS, NOTEBOOKS, LOGS
QA-021, 018, 019, 020, 027, 017,
001, 002, 028, 029

CONDUCT AUDITS

AUDIT SUMMARY
REPORT QA-026

MRB MINUTES
QA-007

CALIBRATION AND
TEST EQUIPMENT

UPDATE
MANUALS

UPDATED MANUALS
QA-003, 004

TEST
EQUIPMENT
GAGE
CALIBRATION

CALIBRATION
RECORDS QA-016

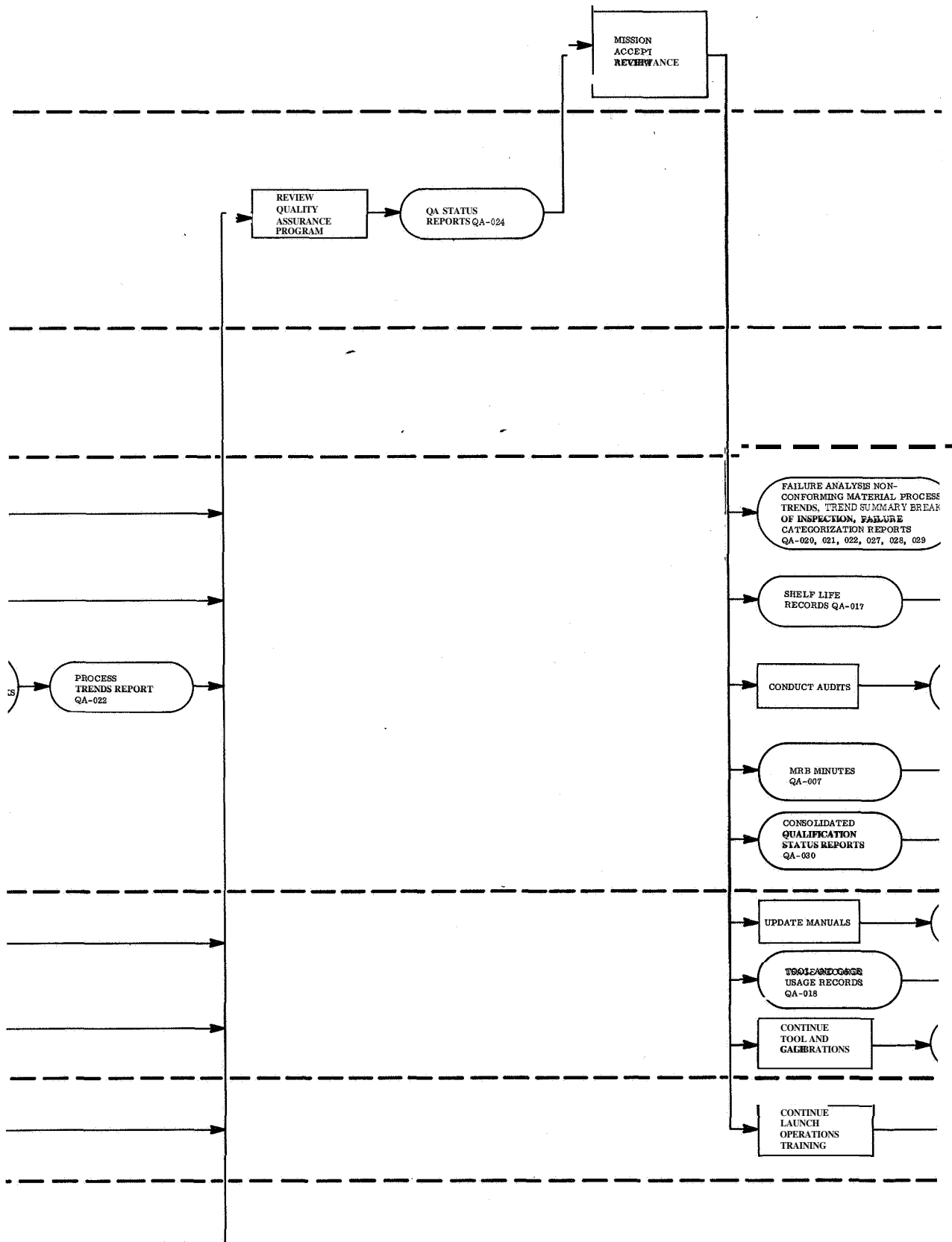
TRAINING

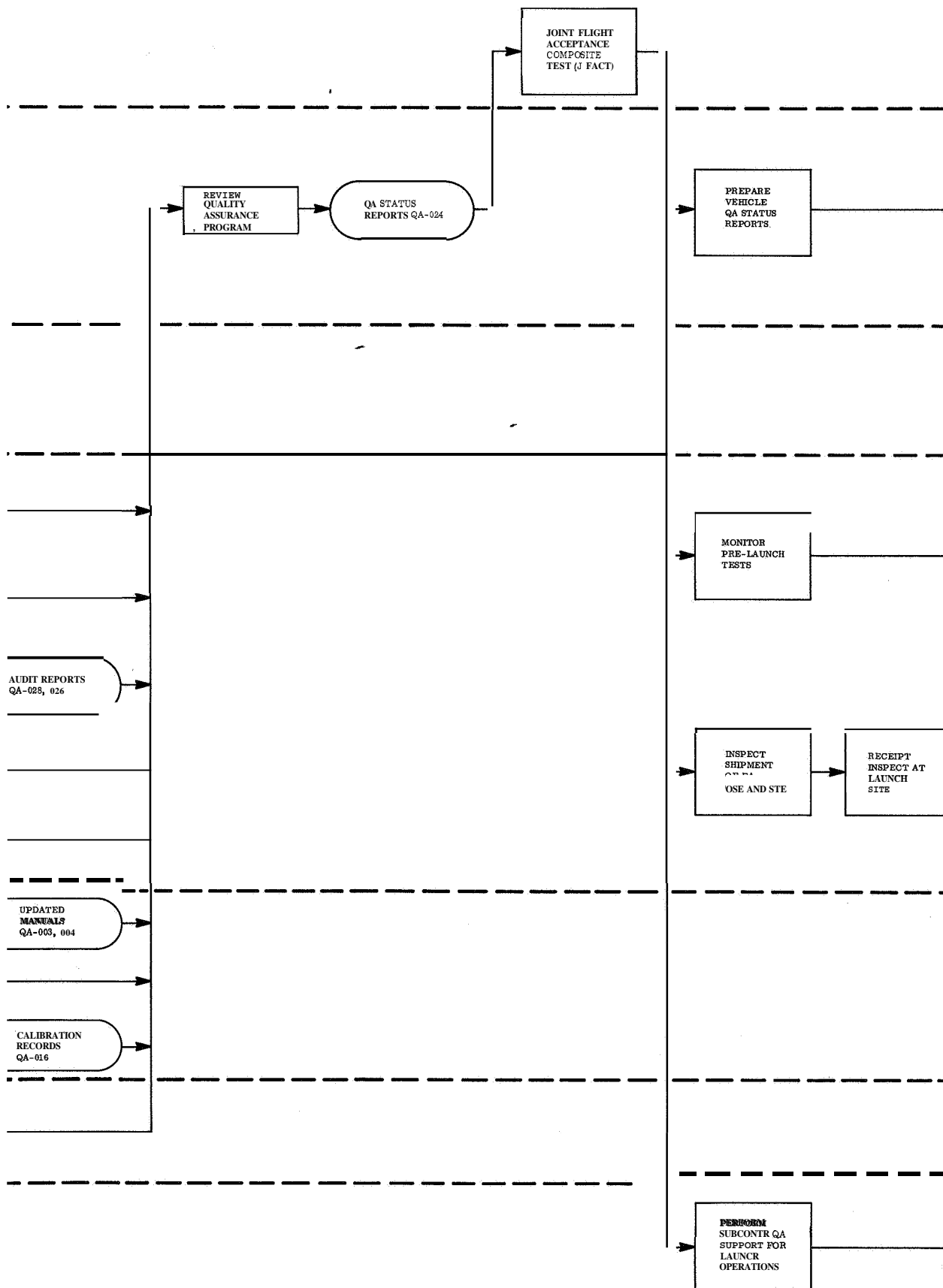
INITIATE
LAUNCH
OPERATIONS
TRAINING

SUBCONTRACTOR

RECEIPT INSPECT
AND COMPLETE ALL
SUBCONTR
DOCUMENTATION
REQUIRED FOR
MISSION ACCEPTANCE
OFFLIGHT HARDWARE

• AS DESIGNED* CONFIGURATION LIST CM-009
• "AS BUILT" CONFIGURATION LIST CM-012
• ALL NONCONFORMANCES QA-02
• ALL MANUALS PC-014
• QAE RESIDENT REPORTS





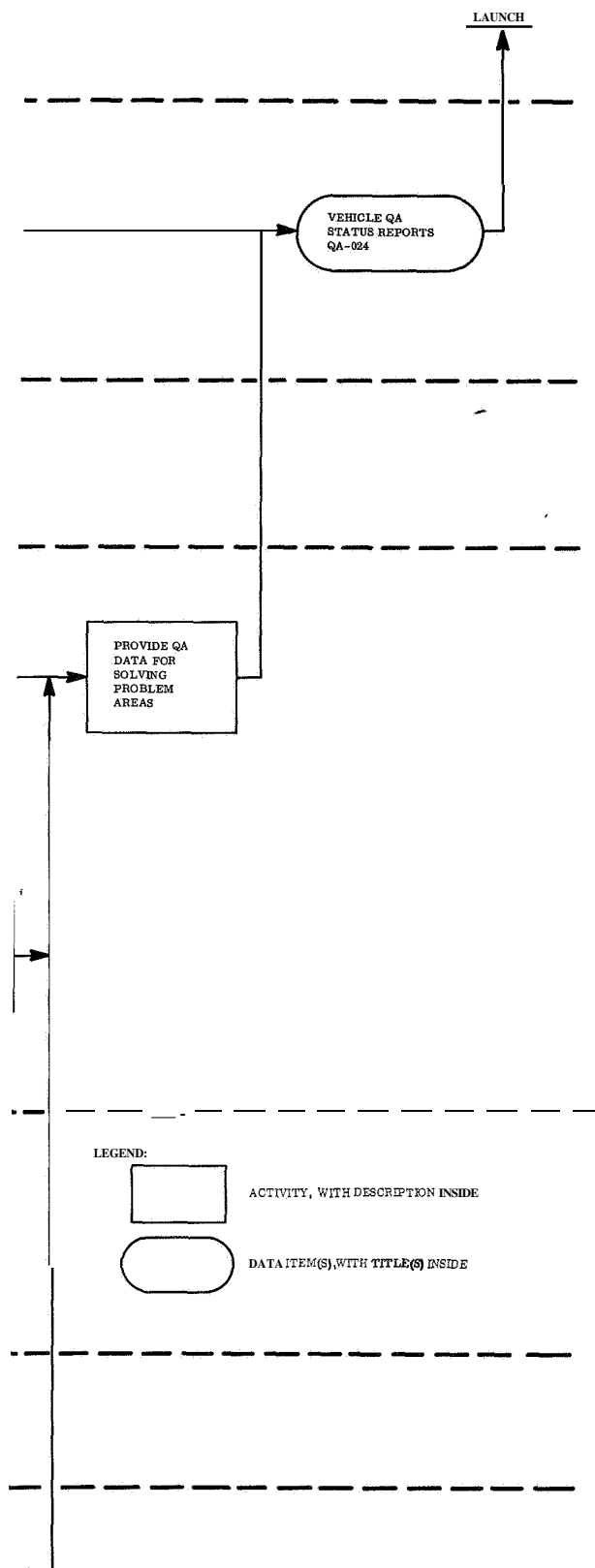


Figure E-4. Quality Assurance User Flow Diagram - Critical Design Review Through Launch (Sheet 2 of 2)

Quality Assurance Data Requirement Descriptions

<u>DRD Number</u>	<u>Title</u>
QA-001	Logbook, Component
QA-002	Logbook, 'Vehicle
QA-003	Manual, Instrument Calibration and Maintenance
QA-004	Manual, Quality Assurance Operating Procedures
QA-005	Manual, Special Test Equipment, Component
QA-006	Manual, Workmanship Standards
QA-007	Minutes, Material Review Board
QA-008	Plan, Inspection
QA-009	Plan, Quality Assurance Program
QA-010	Plan, Sampling
QA-011	Plan, Test and Operating, for Special Test Equipment (STE), Component
QA-012	Procedure, Process Control
QA-013	Procedure, Test/Inspection
QA-014	Procedure, Rework
QA-015	Procedure, Area Control
QA-016	Record, Calibration
QA-017	Record, Shelf Life
QA-018	Record, Tool and Gauge Usage
QA-019	Record, Test (Materials, Parts, Sub-Assemblies)
QA-020	*Report, Failure Analysis
QA-021	*Report Nonconforming Material (NCMR)
QA-022	*Report, Process Trends
QA-023	*Report, Quality Audit
QA-024	*Report, Quality Status
QA-025	Report, Special Measurement and Test Equipment Evaluation (Component)

*Key Informal Data

<u>DRD Number</u>	<u>Title</u>
QA-026	Report, Quality Assurance Audit Summary
&A-027	Report, 'Quality Trend Summary
QA-028	Report, Break of Inspection
QA-029	*Report, Failure Categorization
&A-030	Report, Qualification Status
&A-031	Specification, Special Test Equipment (STE), Component

***Key Informal Data**

GE EXHIBIT DRD QA-001

VOYAGER DATA REQUIREMENT DESCRIPTION					DRD APPROVED BY		DATE		DATA CATEGORY		
ORGANIZATION ORIGINATING REQUIREMENT		CODE QA	OFFICE RESPONSIBLE FOR DRD		CODE	DRD PREPARED BY: T. Smyth		DATE 7/28/67		CONTRACT NO.	DRD NO.: QA-001
TITLE OF DOCUMENT: LOGBOOK, COMPONENT						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK		DRL ITEM NO.	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION		DRL NO.		LEVEL NO.	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION		DDL NO.		FILE NO.	
								NO. OF COPIES			
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION						ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		1			
USE OF DOCUMENT: To record chronological historical data and pertinent information used in reviewing component status, tracing and solving anomalies and to determine suitability in meeting requirement and acceptance criteria.						ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: CM-003, Change Notice QA-009, Plan, Quality Assurance Program QA-021, *Report, Nonconforming Material (NCRM) TE-027, *Logbook, Test TE-061, *Logbook Cumulative Test Time						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="radio"/> QUARTERLY <input type="radio"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="radio"/> SEMI-MONTHLY <input type="radio"/> 31-WEEKLY <input type="checkbox"/> WEEKLY <input type="radio"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE HDR UPDATE (FREQUENCY OR MILESTONE) Daily thru MAJ			
						1)for each comp.		ESTIMATED EXPIRATION DATE			
						CLASSIFICATION: <input type="radio"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="radio"/> SECRET RESTRICTED DATA <input type="radio"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED					
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="radio"/> ILLUSTRATION <input type="radio"/> MODEL <input type="radio"/> RECORDING (TAPE OR DISC) <input type="radio"/> COMPUTER CARD <input type="radio"/> COMPUTER TAPE <input type="radio"/> MICROFILM (W/OR W/O CARD) <input type="radio"/> OTHER _____ _____ _____						KIND OF DATA: <input type="radio"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="radio"/> BULLETIN <input type="checkbox"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="radio"/> DISCLOSURE <input type="radio"/> ENGINEERING CHANGE ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="radio"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input checked="" type="checkbox"/> LOG <input type="radio"/> MANUAL <input type="radio"/> MEMORANDUM <input type="radio"/> MINUTES <input type="checkbox"/> PLAN <input type="radio"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="radio"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER					
						REFERENCE DOCUMENTS					
APPLICABLE STANDARDS											
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT DATE PREPUBLICATION PROOF DATE											
SUBMIT FOR REVIEW TO: _____ BY _____											
SUBMIT FOR APPROVAL TO: _____ BY _____											
Manager, Quality Assurance											

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-00

A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION' (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Component Logbook is a chronological, historical record of component activity starting with the first functional test.
2. Each Component Logbook is serialized and is assigned to a specific piece of hardware identified by a lot number or serial number.
3. The cognizant engineer identifies the various parameters to be recorded in the logbook.
 - a. Number of mated and demated connectors.
 - b. Number of hours power was applied to the component.
 - c. Number of operating test cycles of the component.
 - d. Number of out-of-specification readings (failures) troubleshooting procedure, assignable for the out-of-specification reading and how the correction was accomplished. This is in addition to **MRB** documentation.
 - e. Any abnormal occurrence, no matter how insignificant, is recorded.
4. References break of inspection record and nonconforming material record.
5. References the failures and failure analysis reports.
6. Identifies component configuration.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-002

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:		DATA CATEGORY:			
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. Smyth		DATE: 17/28/67		CONTRACT NO.:	DRD NO.: QA-002
TITLE OF DOCUMENT: LOGBOOK, VEHICLE						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
						TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION					
USE OF DOCUMENT: To verify by a documented logbook to the customer the historical and chronological acceptance events of the vehicle presented for buy off.						FOR DOCUMENT STOWAGE:		NO OF COPIES: 10			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: CM-005, Index, Contract End Item Approved Configuration CM-010, List, Hardware Incorporated Changes (?A-001, Logbook, Component (?A-009, Plan, Quality Assurance Program (?A-021, *Report, Nonconforming Material (NCRM) IRA-006, Log, Problem/Failure Summary						ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:			
						FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> EI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> EI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED As required		PUBLICATION DATE: HDR			
								UPD R MILESTONE: As required thru launch			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN		ESTIMATED EXPIRATION DATE:	
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input checked="" type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER						REFERENCE DOCUMENTS:					
						APPLICABLE STANDARDS:					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT				DATE		PREPUBLICATION PROOF				DATE	
SUBMIT FOR REVIEW TO: _____				_____		_____				_____	
_____ BY _____				_____		_____				_____	
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_____				_____		_____				_____	
SUBMIT FOR APPROVAL TO _____				_____ BY _____		_____				_____	
_____				_____		_____				_____	
_____				_____		_____				_____	
Manager Quality Assurance				_____		_____				_____	

GE EXHIBIT DRD QA-002

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

Logbooks may be any number of volumes dependent upon events (number of BOI's etc.) occurring during vehicle processing. Since the books are a completion of numerous types of data items, they will be in notebook form with appropriate covers.

DRD NO.
QA-002

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Lists all components by serial number, drawing and revision number, and verifies acceptance buy off.
2. Verifies inspection buy off during assembly.
3. List of all nonconforming material reports written during assembly and test and verifies acceptance buy off.
4. Lists all **MRB** actions and dispositions.
5. Lists all tests and results and verifies acceptance.
6. Records power on time, cycle times, mating and demating of connectors, etc. All pertinent actions as performed on the vehicle during assembly and test.
7. Records all break of inspection events.
8. Record of compliance to the latest configuration.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-003

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT:	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-003
TITLE OF DOCUMENT: MANUAL INSTRUMENT CALIBRATION AND MAINTENANCE				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
				TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input checked="" type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION			
USE OF DOCUMENT: Provide a standardized, approved set of procedures for performing the scheduled calibration and maintenance of test and measurement instruments. These controlled procedures maintain the accuracy standards reliability and confidence in the inspection and test data.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO. OF COPIES: 5	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION.		DATE DATA DUE TO USER:	
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INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: &A-009, Plan, Quality Assurance Program				UPDATE (FREQUENCY OR MILESTONE): Maintain current thru launch		ESTIMATED EXPIRATION DATE:	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN			
				<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX			
				REFERENCE DOCUMENTS: MIL-C-45662 - Calibration System Requirements			
				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:							
		BY				BY	
SUBMIT FOR APPROVAL TO		BY				BY	
Manager, Quality Assurance							

GE EXHIBIT DRD QA-003

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-003

Calibration and maintenance procedures for equipment used in tests are published by the equipment engineer. Calibration cycles are based on manufacturer's recommendations and from established historical records on the equipment. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING ODL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Type of Equipment, by Manufacturer.
2. A brief description of the equipment.
3. Equipment accuracy limits and ranges.
4. Maintenance procedure as recommended by the manufacturers and supplemented by the equipment engineer.
5. Calibration procedure for the technician utilizing secondary standards traceable to the Bureau of Standards.
6. Description of the method of documenting the calibration and maintenance performed.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-004

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY:		DATE		DATA CATEGORY:					
ORGANIZATION ORIGINATING REQUIREMENT.		CODE: QA		OFFICE RESPONSIBLE FOR DRD:		CODE		DRD PREPARED BY: T. Smyth		DATE 7/28/67		CONTRACT NO.:		DRD NO.: QA-004	
TITLE OF DOCUMENT: MANUAL, QUALITY ASSURANCE OPERATING PROCEDURES									ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance			TASK OR SUBTASK		DRL ITEM NO.	
									ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION			DRL NO.		LEVEL NO.:	
									ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION			DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT: <input type="radio"/> CONTROL <input type="checkbox"/> ACTION <input checked="" type="checkbox"/> REFERENCE <input type="radio"/> INFORMATION									ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE			NO OF COPIES 30			
USE OF DOCUMENT. To meet the historical and specific customer requirements with established Voyager Management Quality Assurance Procedures									ESTIMATED MANHOURS FOR SINGLE PREPARATION:			INFORMATION CUTOFF DATE OR MILESTONE:			
									ESTIMATED COST (\$) FOR SINGLE PREPARATION:			GATE DATA DUE TO USER:			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-021, Report, Nonconforming Material (NCRM)									FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED Maintain current			PUBLICATION DATE: SDR			
												UPDATE (FREQUENCY OR MILESTONE) Monthly thru launch			
												ESTIMATED EXPIRATION DATE			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED									<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN			<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="radio"/> RECORDING (TAPE OR DISC) <input type="radio"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O R W/O CARD) <input type="radio"/> OTHER _____ _____ _____									KIND OF DATA: <input type="radio"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="radio"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="checkbox"/> INDEX			<input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="checkbox"/> LIST <input type="radio"/> LOG <input type="radio"/> MANUAL <input type="radio"/> MEMORANDUM <input type="radio"/> MINUTES <input type="checkbox"/> PLAN <input checked="" type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="radio"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER			
									REFERENCE DOCUMENTS: Military Specifications Configuration Management (JPL) NPC 200-2 NPC 200-3						
APPLICABLE STANDARDS.															
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)															
SUBMIT FOR REVIEW TO: _____															
BY _____															
SUBMIT FOR APPROVAL TO: _____															
BY _____															
Manager, Quality Assurance _____															

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-00

Procedures incorporate specific customer, and established quality requirements as governed by NASA and Military documents.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING ODL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Defines the purpose and scope of the operating procedure.
2. Assigns specific responsibilities for implementation and control of the procedure.
3. Defines method of implementation by manufacturing.
4. Defines method of measurement and audit requirements.
5. Defines the documentation required to meet the procedure/requirements.

Example: Processing of Nonconformance Material Report through the Material Review Board.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-005

VOYAGER DATA REQUIREMENT DESCRIPTION						DRO APPROVED BY:	DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT:	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T.F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-005	
TITLE OF DOCUMENT: MANUAL, SPECIAL TEST EQUIPMENT, COMPONENT						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION Quality Assurance	TASK OR SUBTASK:	DRL ITEM NO.:
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:	DRL NO.:	LEVEL NO.:
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:	DDL NO.:	FILE NO.:
						NO. OF COPIES:		
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input checked="" type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION								
USE OF DOCUMENT: To control the configuration of the special test equipment consistent with changes necessitated by design and performance requirements and represents an operation manual for special test equipment.						ORGANIZATION RESPONSIBLE FOR DOCUMENT STORAGE:	10	
						ESTIMATED MANHOURS FOR SINGLE PREPARATION:	INFORMATION CUTOFF DATE OR MILESTONE:	
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:	DATE DATA DUE TO USER:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: CM-003, Change Notice QA-009, Plan, Quality Assurance Program TE-030, Procedure, Test Operating						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE AS SPECIFIED Maintain current	PUBLICATION DATE: PDR	
						UPDATE (FREQUENCY OR MILESTONE): Monthly thru FAC1		
						ESTIMATED EXPIRATION DATE:		
CLASSIFICATION: <input type="radio"/> SECRET <input type="radio"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="radio"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		
SPECIAL HANDLING <input type="radio"/> NASA DISCREET <input type="radio"/> JPL DISCREET <input type="radio"/> PROJECT DISCREET <input type="checkbox"/> NOFORN								
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="radio"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="radio"/> MODEL <input type="radio"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O OR W/ CARD) <input type="checkbox"/> OTHER _____						KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX		
						<input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input checked="" type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REWRT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER		
REFERENCE DOCUMENTS:								
APPLICABLE STANDARDS								
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)								
SUBMIT FOR REVIEW TO: _____			DRAFT		DATE		PREPUBLICATION PROOF	
_____			_____		_____		_____	
_____			BY _____		_____		BY _____	
_____			_____		_____		_____	
_____			_____		_____		_____	
_____			_____		_____		_____	
SUBMIT FOR APPROVAL TO _____			BY _____		_____		BY _____	
_____			_____		_____		_____	
_____			Manager, Quality Assurance		_____		_____	

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

DRD NO.:

QA-00

SPECIAL INSTRUCTIONS:

Quality Assurance Engineer is responsible for maintaining the manual current with the design and performance requirements and changes.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Manual describes the test equipment by drawing number and alteration notice and covers its test capabilities as related to a specific piece of hardware.
2. A complete set of print control drawings are a part of the manual.
3. Each modification to test equipment is authorized by a print control drawing and the manual is updated.
4. Changes in operating procedures are made at each revision, and manual is maintained current.
5. Special precautions for operation are detailed in manual.
6. Equipment troubleshooting procedures are detailed.
7. Checkoff lists are detailed for operating equipment.
8. Defines the limitation of the equipment.
9. Calibration and maintenance cycles.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-006

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD: CODE	DRD PREPARED BY: T. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-006	
TITLE OF DOCUMENT: MANUAL, WORKMANSHIP STANDARDS				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
				TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input checked="" type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION			
USE OF DOCUMENT: To provide visual aids for operators and inspectors as acceptance criteria for applicable processes.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES: 10	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED Maintain current		PUBLICATION DATE:	
						UPDATE (FREQUENCY OR MILES ONE): Monthly thru FACI	
						ESTIMATED EXPIRATION DATE:	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> GROUP 1 <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> GROUP 2 <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> GROUP 3 <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input type="checkbox"/> GROUP 4 <input checked="" type="checkbox"/> UNCLASSIFIED <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN							
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O OR W/O CARD) <input type="checkbox"/> OTHER KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input checked="" type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REWRT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER				REFERENCE DOCUMENTS: NPC - 200-4			
				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:							
		BY				BY	
SUBMIT FOR APPROVAL TO:		BY				BY	
Manager, Manufacturing							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

DRD NO.:
QA-00

SPECIAL INSTRUCTIONS

Samples of workmanship are closely coordinated and compatible with the operator/inspector training school for certification. Photographs or work samples must be jointly selected with the customer. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. The manual defines the categories of acceptance and rejection with samples of work or photographs defining, accept, minimum acceptable, and reject.
2. Defines the limitations on rework (e.g. number of splices).
3. Recommends approved inspection procedure (e.g. magnification power).
4. Establishes the most significant criteria of inspection.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-007

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-007
TITLE OF DOCUMENT: MINUTES, MATERIAL REVIEW BOARD				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
				TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION			
USE OF DOCUMENT: To report the status of hardware which is nonconforming.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES: 10	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: CM-016, List, Deviations and Waivers QA-009, Plan, Quality Assurance Program QA-021, Report, Nonconforming Material (NCRM) RA-007, *Minutes, Failure Analysis Review Board (FARB) SE-057, Drawings (Category B) for Interface Control				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input checked="" type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: SDR	
						UPDATE (FREQUENCY OR MILESTONE) Weekly thru launch	
						ESTIMATED EXPIRATION DATE	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN			
				<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX			
				<input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER			
REFERENCE DOCUMENTS: NASA Specifications				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:							
		BY				BY	
SUBMIT FOR APPROVAL TO		BY				BY	
Manager, Quality Assurance							

DRD NO.:

QA-007

SPECIAL INSTRUCTIONS:

A DRD at the subcontractor/vendor level similar in content to this DRD is required.

Contents (see below) shall be coded for inclusion in data system facilitating computerizing data.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Description of hardware by drawing number and nomenclature.
2. Identification of hardware by serial number and lot number.
3. Description of nonconformance and the assignable cause.
4. Corrective action assigned to specific individuals or functions.
5. Disposition of the hardware:
 - a. Accept as is
 - b. Return to vendor
 - c. Repair
 - d. Retest
 - e. Scrap
 - f. For Engineering use only "E" stamp
 - g. Submit to failure analysis
6. Approvals
 - a. Quality Assurance Engineering
 - b. Design engineering
 - c. Customer representative

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD &A-008

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY:		DATE:		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. Smyth		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-008
TITLE OF DOCUMENT: PLAN, INSPECTION						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION											
USE OF DOCUMENT. To document the parameters to be controlled during the manufacture cycle to assure the highest level-of quality consistent with drawing requirements.						ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-004, Manufacturing Standing Instructions (MSIs) MG-012, *Request, Manufacturing Planning QA-009, Plan, Quality Assurance Program SE-059 Drawings (Category E) for Manufacture and Procurement of Prime Equipment						ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER'			
						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="radio"/> QUARTERLY <input type="radio"/> BI-MONTHLY <input type="radio"/> MONTHLY <input type="radio"/> SEMI-MONTHLY <input type="radio"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input checked="" type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE: SDR			
								UPDATE (FREQUENCY OR MILESTONE). through HDR			
CLASSIFICATION: <input type="radio"/> SECRET <input type="radio"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="radio"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> OTHER _____ _____ _____						KIND OF DATA: <input type="radio"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="radio"/> BULLETIN <input type="radio"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="radio"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="radio"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX		<input type="radio"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="radio"/> LOG <input type="radio"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="radio"/> MINUTES <input checked="" type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="radio"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="radio"/> STANDARD <input type="checkbox"/> VOUCHER		REFERENCE DOCUMENTS: Applicable NASA Spec.	
								APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
SUBMIT FOR REVIEW TO: _____											
BY _____											
SUBMIT FOR APPROVAL TO: _____											
BY _____											
Manager, Quality Assurance											

GE EXHIBIT DRD QA-008

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

DRD NO.:

QA-008

SPECIAL INSTRUCTIONS:

For critical processes special inspection planning is issued. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION: (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

None

OUTLINE OF CONTENTS:

Inspection Planning contains control parameters that specify attributes to be inspected and lists any special inspection tooling required to verify conformance to the Quality Assurance Plan during the manufacturing cycle.

1. Hardware drawing number
2. Hardware nomenclature
3. Project
4. NHA number
5. Applicable specifications (manufacturing standing instructions, military standard, etc.)
6. Operation number

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-009

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO. QA-009
TITLE OF DOCUMENT: PLAN, QUALITY ASSURANCE PROGRAM				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
				TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION			
USE OF DOCUMENT: The Quality Assurance Program Plan defines and incorporates all contractual requirements for the development of specific quality requirements and controls for all levels of hardware fabrication, test and acceptance by the customer.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES 10	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER	
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE: SDR	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-009, Plan, Manufacturing RA-015, Report, Failure Review SC-002, Schedule, Project Level (PERT) SC-004, Schedule, Task and Subtask Level (PERT) SE-006, Plan, Cleanliness Control				UPDATE (FREQUENCY OR MILESTONE). through CDR		ESTIMATED EXPIRATION DATE:	
CLASSIFICATION:				<input type="checkbox"/> SECRET <input type="checkbox"/> GROUP 1 <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> GROUP 2 <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> GROUP 3 <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROJECT DISCREET <input checked="" type="checkbox"/> UNCLASSIFIED <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> NOFORN <input type="checkbox"/> PUBLIC DOMAIN			
FORM OF DATA: KIND OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> CHART <input type="checkbox"/> BROCHURE <input type="checkbox"/> LETTER <input type="checkbox"/> DIAGRAM <input type="checkbox"/> BULLETIN <input type="checkbox"/> LIST <input type="checkbox"/> DRAWING <input type="checkbox"/> CATALOG <input type="checkbox"/> LOG <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> CONTRACT <input type="checkbox"/> MANUAL <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MODEL <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> ENGINEERING CHANGE <input checked="" type="checkbox"/> PLAN <input type="checkbox"/> COMPUTER CARD ORDER <input type="checkbox"/> PROCEDURE <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> REQUEST FOR ENGINEER- <input type="checkbox"/> REGULATION <input type="checkbox"/> MICROFILM (W/OR W/O CARD) ING CHANGE PROPOSAL <input type="checkbox"/> REPORT <input type="checkbox"/> OTHER <input type="checkbox"/> ENGINEERING CHANGE <input type="checkbox"/> SCHEDULE PROPOSAL <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> HANDBOOK <input type="checkbox"/> STANDARD <input type="checkbox"/> INDEX <input type="checkbox"/> VOUCHER				REFERENCE DOCUMENTS: NPC - 200-2, 200-3 and 200-4			
				APPLICABLE STANDARDS:			
				REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)			
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO: _____		_____		_____		_____	
_____		_____		_____		_____	
BY _____		_____		BY _____		_____	
_____		_____		_____		_____	
_____		_____		_____		_____	
SUBMIT FOR APPROVAL TO _____		_____		_____		_____	
BY _____		_____		BY _____		_____	
Project Manager		_____		_____		_____	

GE EXHIBIT DRD QA-009

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

None

DRD NO.:
QA-009

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

Delineates the implementation of the controls proposed by the system contractor necessary to meet the requirements of NPC 200-2 and the customer work statement. Contents are as follows:

1. Introduction
2. Approach/Problems
 - a. Traceability
 - b. Customer/Contractor Relationship
 - c. Life-Sensitive Flight Hardware
 - d. Cleanliness
3. Management
 - a. GE
 - b. Major Subcontractors
 - c. Program Management
4. Program Controls
 - a. Design and development control
 - b. Control of procured material
 - c. Control of contractor's fabricated articles
 - d. Test controls
 - e. Data reporting and corrective action
 - f. QA audits
 - g. Inspection, measuring and test equipment
5. Relationship with other management plans

GE EXHIBIT DRD OA-010

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY	DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE	DRD PREPARED BY: T. Smyth	DATE 7/28/67	CONTRACT NO.:	DRD NO.: QA-010	
TITLE OF DOCUMENT: PLAN, SAMPLING						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance	TASK OR SUBTASK:	DRL ITEM NO.:
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:	DRL NO.:	LEVEL NO.:
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:	DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION								
USE OF DOCUMENT: To document and control the established sample size necessary to maintain an acceptable quality level for incoming bulk material and/or other articles such as pyros, fuses, etc. The plan applies to lot sizes compatible with the quality requirements of the program.						ORGANIZATION RESPONSIBLE FOR DOCUMENT STORAGE:	NO OF COPIES: 5	
						ESTIMATED MANHOURS FOR SINGLE PREPARATION:	INFORMATION CUTOFF DATE OR MILESTONE:	
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:	DATE DATA DUE TO USER:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-019, Record, Test (Materials, Parts, Subassemblies)						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="radio"/> QUARTERLY <input type="radio"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="radio"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="radio"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time	PUBLICATION DATE: SDR	
						UPDATE (FREQUENCY OR MILESTONE): 'Through FACI'		
						ESTIMATED EXPIRATION DATE:		
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="radio"/> GROUP 1 <input type="checkbox"/> CONFIDENTIAL <input type="radio"/> GROUP 2 <input type="radio"/> SPECIAL HANDLING <input type="radio"/> SECRET RESTRICTED DATA <input type="radio"/> GROUP 3 <input type="radio"/> NASA DISCREET <input type="radio"/> CONFIDENTIAL RESTRICTED DATA <input type="radio"/> GROUP 4 <input type="radio"/> JPL DISCREET <input type="radio"/> UNCLASSIFIED <input type="radio"/> PROPRIETARY <input type="radio"/> PROJECT DISCREET <input type="radio"/> PUBLIC DOMAIN <input type="radio"/> NOFORN								
FORM OF DATA: KIND OF DATA:						REFERENCE DOCUMENTS:		
<div><div><input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="radio"/> FILM (STATIC OR MOTION) <input type="radio"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="radio"/> COMPUTER CARD <input type="radio"/> COMPUTER TAPE <input type="radio"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> OTHER</div><div><input type="radio"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="radio"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="radio"/> DISCLOSURE <input type="radio"/> ENGINEERING CHANGE ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="radio"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX</div><div><input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="radio"/> LOG <input type="radio"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="radio"/> MINUTES <input checked="" type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="radio"/> REWRT <input type="checkbox"/> SCHEDULE <input type="radio"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER</div></div>						MIL- STD - 105 NPC 200-2		
						APPLICABLE STANDARDS:		
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)								
DRAFT			DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO: _____								
_____ BY _____								

SUBMIT FOR APPROVAL TO: _____								
_____ BY _____								
<u>Manager, Quality Assurance</u>								

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:
QA-010

Incoming inspection planning with the Quality Assurance Engineer determines the acceptable quality levels for incoming inspection of bulk material or special articles and specifies the sampling plan for the lot size. A DRD at the subcontractor/vendor level similar in content to this **DRD** is required.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING, DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Hardware drawing number
2. Hardware nomenclature
3. Applicable specifications
4. Lot size
5. Sample size
6. Acceptance criteria
7. Operating characteristic curve
8. Space for recording data
9. Signature of originator
10. Revision number of planning
11. Date

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD &A-011

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY		DATE:		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. F. Smyth		DATE: 7/28/67'		CONTRACT NO.:	DRD NO.: QA-011
TITLE OF DOCUMENT: PLAN, TEST AND OPERATING, FOR SPECIAL TEST EQUIPMENT, (STE), COMPONENT						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION						ORGANIZATION RESPONSIBLE FOR DOCUMENT STORAGE		NO OF COPIES: 5			
USE OF DOCUMENT: To document the detailed checkout procedure of the test equipment prior to utilizing with flight hardware.						ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER:			
						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="radio"/> QUARTERLY <input type="radio"/> BI-MONTHLY <input type="radio"/> MONTHLY <input type="radio"/> SEMI-MONTHLY <input type="radio"/> 81-WEEKLY <input type="radio"/> WEEKLY <input type="radio"/> DAILY <input checked="" type="checkbox"/> OTHERWISE AS SPECIFIED As required		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE): Through FACI ESTIMATED EXPIRATION DATE			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: TE-001, Plan, Integrated Test											
CLASSIFICATION:		<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="radio"/> PUBLIC DOMAIN		<input type="radio"/> SECRET <input type="radio"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED		<input type="radio"/> SPECIAL HANDLING <input type="radio"/> NASA DISCREET <input type="radio"/> JPL DISCREET <input type="radio"/> PROJECT DISCREET <input type="radio"/> NOFORN					
DRM OF DATA: , KIND OF DATA. <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="radio"/> CHART <input type="radio"/> BROCHURE <input type="radio"/> LETTER <input type="radio"/> DIAGRAM <input type="radio"/> BULLETIN <input type="radio"/> LIST <input type="radio"/> DRAWING <input type="radio"/> CATALOG <input type="radio"/> LOG <input type="radio"/> FILM (STATIC OR MOTION) <input type="radio"/> CONTRACT <input type="radio"/> MANUAL <input type="radio"/> ILLUSTRATION <input type="radio"/> DIRECTIVE <input type="radio"/> MEMORANDUM <input type="radio"/> MODEL <input type="radio"/> DISCLOSURE <input type="radio"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="radio"/> ENGINEERING CHANGE ORDER <input checked="" type="checkbox"/> PLAN <input type="radio"/> COMPUTER CARD <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> PROCEDURE <input type="radio"/> COMPUTER TAPE <input type="checkbox"/> REGULATION <input type="radio"/> MICROFILM (W/OR W/O CARD) <input type="radio"/> OTHER <input type="radio"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> REPORT _____ _____ <input type="checkbox"/> SCHEDULE _____ <input type="checkbox"/> SPECIFICATION _____ <input type="radio"/> HANDBOOK <input type="radio"/> STANDARD _____ <input type="radio"/> INDEX <input type="radio"/> VOUCHER						REFERENCE DOCUMENTS:					
						APPLICABLE STANDARDS:					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
SUBMIT FOR REVIEW TO: _____				DRAFT		DATE		PREPUBLICATION PROOF		DATE	
_____ BY _____				_____		_____		_____ BY _____		_____	
_____ BY _____				_____		_____		_____ BY _____		_____	
SUBMIT FOR APPROVAL TO _____				BY _____		_____		BY _____		_____	
Manager, Quality Assurance											

GE EXHIBIT DRD QA-011

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS

DRD NO.
QA-01

Quality Assurance engineer witnesses the checkout and operation of the test equipment and verifies the adequacy of the performance to the test procedure.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Description of the test equipment.
2. Detail of the parameters to be tested for and checkout procedures for each parameter.
3. Facilities and peripheral equipment needed to supplement the test equipment.
4. Initial wiring checkout procedures.
5. Operational checkout with a simulated test procedure and a sample data sheet.
6. Special precautions to be taken by operator to assure confidence in the data and integrity of the test.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

VOYAGER DATA REQUIREMENT DESCRIPTION					DRD APPROVED BY	DATE	DATA CATEGORY
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD	CODE	DRD PREPARED BY: T. Smyth	DATE: 7/28/67	CONTRACT NO.	DRD NO.: QA-012
TITLE OF DOCUMENT: PROCEDURE, PROCESS CONTROL					ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance	TASK OR SUBTASK:	DRD ITEM NO.:
					ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:	DRL NO.:	LEVEL NO.:
					ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:	DD NO.:	FILE NO.
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION							
USE OF DOCUMENT: To identify the step-by-step operating instruction for process-oriented inspections such as radiography and ultrasonic test. These procedures will supplement those contained in Manufacturing Standing Instructions.					ORGANIZATION RESPONSIBLE FOR DOCUMENT STORAGE:	NO OF COPIES 10	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-004, Manufacturing Standing Instructions (MSIs) MG-009, Plan, Manufacturing QA-009, Plan, Quality Assurance Program					ESTIMATED MANHOURS FOR SINGLE PREPARATION:	INFORMATION CUTOFF DATE OR MILESTONE:	
					ESTIMATED COST (\$) FOR SINGLE PREPARATION:	DATE DATA DUE TO USER:	
					FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time	PUBLICATION DATE SDR UPDATE (FREQUENCY OR MILESTONE) Through CDR ESTIMATED EXPIRATION DATE	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED					<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		
KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX					FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O OR W/O CARD) <input type="checkbox"/> OTHER		
REFERENCE DOCUMENTS: NPC 200-2, 200-3, 200-4					APPLICABLE STANDARDS:		
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT DATE PREPUBLICATION PROOF DATE							
SUBMIT FOR REVIEW TO: _____ BY _____							
SUBMIT FOR APPROVAL TO: _____ BY _____							
Manager, Quality Assurance							

GE EXHIBIT DRD QA-012

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:
QA-012

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Procedure defines the process to be controlled.
2. Document the parameters to be controlled for the preparation of the material.
3. Delineate all controls for the fabrication process by specific conditions to be maintained during the processing.
4. Define the methods of verification and documentation of the process verification.
5. Describe method of verification and the maintenance of special environments to be maintained.
6. References the workmanship standards to be followed.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA- 013

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY		DATE:		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. Smyth		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-013
TITLE OF DOCUMENT: PROCEDURE, TEST/INSPECTION						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION											
USE OF DOCUMENT Provides the necessary specific test/inspection procedures to be performed on the system/subsystem.						ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES 10			
						ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-004, Manufacturing Standing Instructions (MSIS) QA-006, Manual, Workmanship Standards QA-009, Plan, Quality Assurance Program RA-002, List, Critical and Limited Life Items RA-005, List, Parts Application Data						FREQUENCY OF ISSUE <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE SDR UPDATE (FREQUENCY OR MILESTONE) through CDR ESTIMATED EXPIRATION DATE			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFDRN			
FORM OF DATA: , KIND OF DATA. <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> CHART <input type="checkbox"/> BROCHURE <input type="checkbox"/> LETTER <input type="checkbox"/> DIAGRAM <input type="checkbox"/> BULLETIN <input type="checkbox"/> LIST <input type="checkbox"/> DRAWING <input type="checkbox"/> CATALOG <input type="checkbox"/> LOG <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> CONTRACT <input type="checkbox"/> MANUAL <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MODEL <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> ENGINEERING CHANGE ORDER <input checked="" type="checkbox"/> PROCEDURE <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> REGULATION <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> SCHEDULE <input type="checkbox"/> MICROFILM (W/O R W/O CARD) <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> OTHER <input type="checkbox"/> STANDARD _____ _____ <input type="checkbox"/> VOUCHER _____ _____						REFERENCE DOCUMENTS:					
						APPLICABLE STANDARDS:					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT				DATE		PREPUBLICATION PROOF				DATE	
SUBMIT FOR REVIEW TO _____				_____		_____				_____	
_____ BY _____				_____		_____ BY _____				_____	
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_____				_____		_____				_____	
SUBMIT FOR APPROVAL TO _____				BY _____		_____ BY _____				_____	
Manager, Quality Assurance				_____		_____				_____	

GE EXHIBIT DRD QA-013

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-013

Specific detailed procedures are written for each inspection and test operation. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Identifies the article to be inspected or tested by its specific drawing number, latest revision, serial and lot number.
2. Defines the objectives of test/inspection.
3. Specifies the equipment to be used including the range, accuracy required, and type.
4. Details the test operator's/inspector's operation to be performed, the exact method of measuring or testing.
5. Details the exact conditions to be maintained during test/inspection including environmental and precautions for the protection of article and instruments.
6. Establishes the criteria for acceptance or rejection of the article being tested or inspected including workmanship standards.
7. Identifies the test specifications and the test procedures to be followed (standing instructions).
8. Reports the test cycle and schedule to be followed.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-014

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE:		DATA CATEGORY:							
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: J. R. Gottshall		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-014				
TITLE OF DOCUMENT: PROCEDURE, REWORK						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:					
						(ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:					
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DOL NO.:		FILE NO.:					
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION						FOR DOCUMENT STOWAGE:		NO OF COPIES: 50							
USE OF DOCUMENT: To outline the steps and approvals required to process any rework.						ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:							
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:							
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-009, Plan, Manufacturing RA-009, Plan, Reliability RA-014, Standard, Rework						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="radio"/> BI-MONTHLY <input type="radio"/> MONTHLY <input type="radio"/> SEMI-MONTHLY <input type="radio"/> BI-WEEKLY <input type="radio"/> WEEKLY <input type="radio"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE: PDR							
								UPDATE (FREQUENCY OR MILESTONE): As Required through CDR							
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="radio"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFDRN							
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> CHART <input type="radio"/> DIAGRAM <input type="radio"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="radio"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="radio"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="radio"/> OTHER						KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="radio"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="radio"/> DISCLOSURE <input type="radio"/> ENGINEERING CHANGE ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX		REFERENCE DOCUMENTS: NPC 200-2							
						<input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="radio"/> LOG <input type="radio"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input checked="" type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="radio"/> REPORT <input type="checkbox"/> SCHEDULE <input type="radio"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER		APPLICABLE STANDARDS							
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)															
DRAFT				DATE				PREPUBLICATION PROOF				DATE			
SUBMIT FOR REVIEW TO: _____															
_____				BY _____				_____				BY _____			
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_____				_____				_____				_____			
SUBMIT FOR APPROVAL TO: _____				BY _____				_____				BY _____			
Manager, Quality Assurance				_____				_____				_____			

GE EXHIBIT DRD \$A-014

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:
QA-01

The procedure will implement and conform to the rework policies specified by the Reliability Section.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Purpose
2. Scope
3. Definitions
4. Responsibilities
5. Procedures

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-015

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT:	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-015
TITLE OF DOCUMENT: PROCEDURE, AREA CONTROL				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION							
USE OF DOCUMENT: To control the requirements of the Voyager contract for the cleanliness of fabrication and test areas and to maintain the required quality level in these areas.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES 10	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-009, Plan, Manufacturing QA-009, Plan, Quality Assurance Program SE-021, General Engineering Specification, Magnetic Cleanliness SE-023, General Engineering Specification, Cleanliness				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE: PDR	
						UPDATE (FREQUENCY OR MILESTONE) Through CDR	
						ESTIMATED EXPIRATION DATE	
CLASSIFICATION:							
<input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA:				REFERENCE DOCUMENTS:			
KINO OF DATA. <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				<input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input checked="" type="checkbox"/> REGULATION <input type="checkbox"/> REWRT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER			
				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:							
		BY				BY	
SUBMIT FOR APPROVAL TO:							
		BY				BY	
Project Manager							

GE EXHIBIT DRD QA-015

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

ORD NO.:

QA-01

The Quality Appraisal function will define the criteria of the environments for the facilities where hardware will be built, tested, packaged and stored. This criteria will establish limits for cleanliness and handling as required by the customer's contract. A plan of controlling, auditing, and reporting will be incorporated into the area requirement specifications. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Identify area of control.
2. Define the levels of control.
 - a. Temperature
 - b. Humidity
 - c. Particle count
 - d. Audit period
 - e. Storage and handling
3. Define method of controlling contamination.
 - a. Material, floors, furniture, and tools.
 - b. Clothing, shoes
 - c. Protective clothing
4. Maintenance schedules and methods to be used.
5. Frequency of measurement of area contamination level.
6. Maintain capability control charts in each area.
7. Training of personnel. Information manual.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-016

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	CATEGORY CATEGORY:				
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T.F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-016				
TITLE OF DOCUMENT: <h2 style="margin: 0;">RECORD, CALIBRATION</h2>				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION		TASK OR SUBTASK:	DRL ITEM NO.:				
				Quality Assurance							
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:				
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:				
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES: 5					
USE OF DOCUMENT: An established automatic computerized recall system for tools, gages and instruments to maintain the integrity and confidence in the inspection and test operations. A reference for establishing wear patterns and maintenance cycles.				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:					
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER					
				FREQUENCY OF ISSUE:		PUBLICATION DATE:					
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-018, Record, Tool and Gauge Usage TE-129, Procedure, Equipment Calibration and Checkout				<input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED As required		UPDATE (FREQUENCY OR MILESTONE):					
						Every Calibration					
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN					
FORM OF DATA: <input type="radio"/> PRINTED DOCUMENT <input type="radio"/> CHART <input type="checkbox"/> DIAGRAM <input type="radio"/> DRAWING <input type="radio"/> FILM (STATIC OR MOTION) <input type="radio"/> ILLUSTRATION <input type="radio"/> MODEL <input type="radio"/> RECORDING (TAPE OR DISC) <input type="radio"/> COMPUTER CARD <input type="radio"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR WO CARD) <input checked="" type="checkbox"/> OTHER <u>Historical File</u>				KIND OF DATA: <input type="radio"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="checkbox"/> CATALOG <input type="radio"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="radio"/> DISCLOSURE <input type="radio"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX				<input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input checked="" type="checkbox"/> LOG <input type="radio"/> MANUAL <input type="radio"/> MEMORANDUM <input type="radio"/> MINUTES <input type="checkbox"/> PLAN <input type="radio"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="radio"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER			
REFERENCE DOCUMENTS:				APPLICABLE STANDARDS:							
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT		DATE		PREPUBLICATION PROOF		DATE					
SUBMIT FOR REVIEW TO:		BY		BY							
SUBMIT FOR APPROVAL TO:		BY		BY							
		Manager, Quality Assurance									

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-016

Automatic data processing techniques are utilized by the Instrument Control Section to assure periodic recall of measurement and test equipment for calibration purposes. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION, (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

The record contains:

- | | |
|--------------------------------|--|
| 1. Inventory control number | 10. Condition code |
| 2. Equipment name | 11. Calibration cycle |
| 3. Manufacturer's name | 12. Calibration date (due) |
| 4. GE drawing number/model no. | 13. Present location |
| 5. Serial number | 14. Part number |
| 6. Range | 15. Purchase order of instrument |
| 7. Responsible operation | 16. Listing of repairs made at calibration |
| 8. Responsible custodian | 17. Data points performed at each calibration |
| 9. Last inventory date | 18. Name of personnel performing the calibration |

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-017

VOYAGER DATA REQUIREMENT DESCRIPTION					DRD APPROVED BY:		DATE	DATA CATEGORY:			
ORGANIZATION ORIGINATING REQUIREMENT		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. F. Smyth		DATE: 17/28/67	CONTRACT NO.	DRD NO.: QA-017	
TITLE OF DOCUMENT: RECORD, SHELF LIFE						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.		
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.	LEVEL NO.		
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.	FILE NO.		
						TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION					
USE OF DOCUMENT To control the use of materials which are subject to age deterioration and dispose of material whose useful life is expended.						ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES 10			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program RA-009, Plan, Reliability Program SE-001, Plan, Engineering Development SE-016, Specification, Material SE-028, List, Approved Materials						ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER			
						FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED One time		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE) Maintain current thru launch ESTIMATED EXPIRATION DATE:			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input checked="" type="checkbox"/> OTHER Label						KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)						REFERENCE DOCUMENTS:					
SUBMIT FOR REVIEW TO:						APPLICABLE STANDARDS					
SUBMIT FOR APPROVAL TO:						PREPUBLICATION PROOF					
DATE						DATE					

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.

QA-01

The control of limited lifetime material is by means of shelf life labels permanently attached to the material. Determination of shelf life is made by reference to the suppliers instruction manual or special instructions supplied with the material or indication of shelf life limitations marked on the material by the Materials and Process Laboratory. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING, DOL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

The shelf lifetime label indicates the following information:

1. Material part no. and/or nomenclature.
2. Purchase order number.
3. Date not to be used after _____
4. Temperature storage requirements.
5. Disposition routine for time date expired material.
6. As each label is affixed to the container a permanent record is established for the material and contains this information:

Date, Type of Material, Released to, Expiration Date of Material,
Disposition of Material, etc.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-018

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD: CODE	DRD PREPARED BY: T. Smyth	DATE: 7/28/67	CONTRACT NO.	DRD NO.: QA-018	
TITLE OF DOCUMENT: RECORD, TOOL AND GAGE USAGE				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRD ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input checked="" type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO. OF COPIES: 5	
USE OF DOCUMENT: To assure, by documentation, that tools and gages which measure dimension, contours, or locations affecting quality characteristics are initially checked for accuracy prior to use and periodically thereafter to ensure continued accuracy.				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-001, Drawings, Interface Tools, Jigs and Fixtures MG-002, *Drawings, Tools, Jigs and Fixtures QA-004, Manual, Quality Assurance Operating QA-009, Plan, Quality Assurance Program				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER: HDR	
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input checked="" type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE:	
						UPDATE (FREQUENCY OR MILESTONE) Maintain current thru launch	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN			
<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN				ESTIMATED EXPIRATION DATE			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O OR W/ CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX			
				REFERENCE DOCUMENTS:			
				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:							
		BY				BY	
		BY				BY	
SUBMIT FOR APPROVAL TO							
Manager, Quality Assurance							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-018

The control, identification, and recall of tools and gages are the responsibility of the Quality Appraisal Instrument and Calibration Laboratory. A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION: (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

None

OUTLINE OF CONTENTS:

The control, identification and recall capability is by means of a computerized system. The computer cards within this system contain the pertinent information for control.

1. I and C lab control number.
2. Supplier's identification number and nomenclature.
3. Purchase order number and cost.
4. Present location.
5. Tolerances.
6. Date of last calibration.
7. Frequency of calibration.
 - a. Date of next calibration.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-019

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE:	DATA CATEGORY:		
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: J.R. Gottshall	DATE: 7/28/67	CONTRACT NO.:	DRD NO.:		
TITLE OF DOCUMENT: RECORD, TEST (MATERIALS, PARTS, SUB-ASSEMBLIES)				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRD ITEM:		
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:		
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:		
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES 10			
USE OF DOCUMENT: To permanently record variable data of testing results of flight hardware.				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
				ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER:			
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input checked="" type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED 4s required		PUBLICATION DATE HDR UPDATE (FREQUENCY OR MILESTONE). Not applicable ESTIMATED EXPIRATION DATE:			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance QA-013, Procedure, Test/Inspection TE-001, Plan, Integrated Test TE-130, Plan, General Test				CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED		<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input checked="" type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER				REFERENCE DOCUMENTS: <p style="text-align: center;">NPC 200-2</p>	
APPLICABLE STANDARDS:									
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)									
DRAFT		DATE		PREPUBLICATION PROOF		DATE			
SUBMIT FOR REVIEW TO:		BY		BY					
SUBMIT FOR APPROVAL TO:		BY		BY					
		Manager, Quality Assurance							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS'

Computer cards will be used for parts data.

DRD NO..
QA-01

Preprinted data sheets will be used to record material and subassembly data.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Component name.
2. GE drawing number with most recent revision.
3. Vendor serial number.
4. Vendor's name (not trademark).
5. Vendor's test procedures number and revision.
6. The name, make, model number, vendor's identification number and calibration due date of the test equipment, gages or tools used.
7. Provisions for signatures of the vendor's and GE responsible representative(s).
8. A brief description of each test with a reference to the applicable paragraph in the vendor's test procedure (e.g., input power, continuity, frequency response, etc.).
9. Units of measure (e.g., ohms, ma, etc.).
10. Tolerances - Given in limits, not percent (e.g., 4750-5250 ohms) except where measurement is in percent (e.g., harmonic distortion).
11. Actual readings taken during tests. Do not record as pass or fail unless otherwise specified.
12. Date of tests.
13. Operating time matrix: includes hardware operating and nonoperating time in the testing environments.
14. Identification of environment associated with each set of test readings.
15. The number of any failure reporting documents associated with the test.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-020

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT		CODE: OFFICE RESPONSIBLE FOR DRD:		DRD PREPARED BY:		DATE:		CONTRACT NO. DRD NO.:	
RA				T.F. Smyth		7/28/67		QA-020	
TITLE OF DOCUMENT: *REPORT, FAILURE ANALYSIS				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION:		TASK OR SUBTASK:		DRD ITEM NO.:	
				Quality Assurance					
				ORGANIZATION RESPONSIBLE FOR DOCUMENT		DRL NO.:		LEVEL NO.:	
TYPE OF DOCUMENT: <input type="radio"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
USE OF DOCUMENT: To document the investigatory steps in the analysis of a nonconformance including what was the problem, what caused it, and what is being done to prevent recurrence. Users: Quality Appraisal (FARB) - Reliability - Design Engineering				ORGANIZATION RESPONSIBLE FOR DOCUMENT STORAGE		NO. OF COPIES:			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-021, Report, Nonconforming Material (NCMR) RA-007, *Minutes, Failure Analysis Review Board (FARB) RA-009, Plan, Reliability Program RA-015, Report, Failure Review				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:			
				FREQUENCY OF ISSUE:		PUBLICATION DATE:			
CLASSIFICATION: <input type="radio"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="radio"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN		<input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED	
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/O OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="radio"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="radio"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="radio"/> ENGINEERING CHANGE <input type="radio"/> ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX		<input type="radio"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="checkbox"/> LOG <input type="radio"/> MANUAL <input type="radio"/> MEMORANDUM <input type="radio"/> MINUTES <input type="checkbox"/> PLAN <input type="radio"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER		REFERENCE DOCUMENTS:	
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)				APPLICABLE STANDARDS:					
SUBMIT FOR REVIEW TO:				DATE		PREPUBLICATION PROOF		DATE	
BY						BY			
SUBMIT FOR APPROVAL TO:				DATE		PREPUBLICATION PROOF		DATE	
BY						BY			
Manager, Quality Assurance									

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS.

DRD NO.:

QA-020

In Section 3 of the contents, X-rays, pictures, sketches or other descriptive media should be used to completely describe the failure mechanism.

A DRD at the subcontractor/vendor level similar in content to this DRD is required.

The report will reference a number correlating it to a specific nonconforming material report.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Description of Failure Symptoms - Includes what test the unit failed, under what conditions, the data (or measurement) and when.
2. What Failed - What part, wire, module, bracket, etc. , was the actual failure.
3. Analysis Steps - Description of the total steps taken to identify the failure and the effects of the failure on associated equipment.
4. Corrective Action -, What has been done to prevent reoccurrence of the problem including reference to the documentation that accomplishes this.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-021

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE		DATA CATEGORY						
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD: CODE:		DRD PREPARED BY: T. F. Smyth		DATE: 7/28/67		CONTRACT NO.: DRD NO.: QA-021					
TITLE OF DOCUMENT: *REPORT, NONCONFORMING MATERIAL (NCMR)					ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRD ITEM NO.:					
					ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:					
					ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:					
TYPE OF DOCUMENT: <input type="radio"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION					ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO. OF COPIES: 10							
USE OF DOCUMENT: An established document to report nonconformance in the fabrication, assembly, inspection and test of hardware. It assigns responsibility for nonconformance, corrective action and disposition of the hardware to rework, MRB, failure analysis.					ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:							
					ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:							
					FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="radio"/> QUARTERLY <input type="radio"/> 81-MONTHLY <input type="radio"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="radio"/> 81-WEEKLY <input type="radio"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED As required		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE): Not applicable ESTIMATED EXPIRATION DATE:							
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-007, Minutes, Material Review Board (MRB) QA-009, Plan, Quality Assurance Program QA-020, "Report, Failure Analysis SE-056, Drawings (Category A) for Design Evaluation SE-058, Drawings (Category C) for Test														
CLASSIFICATION: <input type="radio"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED					<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="radio"/> PUBLIC DOMAIN					<input type="radio"/> SPECIAL HANDLING <input type="radio"/> NASA DISCREET <input type="radio"/> JPL DISCREET <input type="radio"/> PROJECT DISCREET <input type="radio"/> NOFORN				
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> CHART <input type="checkbox"/> DIAGRAM <input type="radio"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="radio"/> MODEL <input type="radio"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMRUTER TAPE <input type="checkbox"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> OTHER					KIND OF DATA: <input type="radio"/> ABSTRACT <input type="radio"/> BROCHURE <input type="radio"/> BULLETIN <input type="checkbox"/> CATALOG <input type="radio"/> CONTRACT <input type="radio"/> DIRECTIVE <input type="radio"/> DISCLDSURE <input type="radio"/> ENGINEERING CHANGE ORDER <input type="radio"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="radio"/> HANDBOOK <input type="radio"/> INDEX					<input type="checkbox"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="radio"/> LOG <input type="radio"/> MANUAL <input type="radio"/> MEMORANDUM <input type="checkbox"/> PLAN <input type="radio"/> PROCEDURE <input type="radio"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="radio"/> SPECIFICATION <input type="radio"/> STANDARD <input type="radio"/> VOUCHER				
					REFERENCE DOCUMENTS: Contract NASA Specifications					APPLICABLE STANDARDS:				
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)														
DRAFT DATE PREPUBLICATION PROOF DATE														
SUBMIT FOR REVIEW TO _____ BY _____														
SUBMIT FOR APPROVAL TO _____ BY _____														
Manager, Quality Assurance														

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS'

ORD NO.:

QA-02

A DRD at the subcontractor/vendor level similar in content to this DRD is required.
See sample format.

SPECIAL DISTRIBUTION: (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Serialized preprinted form.
2. Description of the hardware by drawing number and nomenclature.
3. Description of nonconformance and the assignable responsibility.
4. Assigning of corrective action to individual and/or function for implementation.
5. Disposition recommended:
 - a. Failure analysis
 - b. Return to vendor
 - c. Rework
 - d. Scrap
 - e. MRB
 - f. Accept as is
 - g. Retest
6. Approvals required:
 - Manufacturing engineering
 - Design engineering
 - Quality assurance engineering

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-021

1. NOMENCLATURE		NONCONFORMANCE REPORT ON VSSD				2. INITIATED BY DATE	
3. DWG PT/GR REV AN		4. FLIGHT HDW. O.S.E.	5. SOURCE INSP GE GOVT AF NONE		6. REF. REP. NO.	7. LOG ITEM	8. ENVIRONMENT END ITEM
CII #							
9. SERIAL NO.	10. LOT DWO	11. T.P.-S.I. PAR. REV.		12. TYPE OF TEST OR INSP.		13. TEST TIME TO FAIL ____ HR. ____ MIN. ____ CYC.	
14. DISCREPANCY (IN-PROCESS) (FUNCTIONAL)							
Failure Discovered During		Reason for Report		Repair or Disposition Action		Replacement	
1. Bench Test		1. Failed Item		1. Repaired in Place		1. Identical Part	
2. Inspection		2. T.O. Direct		2. Rep Reinstalled		2. Substitute Pt.	
3. Storage		3. Time Expired		3. Adjusted		3. None Needed	
4. Shipping		4. Other		4. Eliminated		4. Not Available	
5. Checkout				5. Condemned			
6. Maintenance				6. Held for Rep.			
7. Mfr. Test				7. Depot Rep.			
8. Operation				8. Failure Analysis			
9. Qual							
15. INITIAL DISPOSITION							
16 DISPOSITION							
17. CORRECTIVE ACTION (TO AVOID RECURRENCE)							
18. CL	19. RECD INSP. REJ	20. PC CODE	21. SHIP NOTICE		22. VEND. SHOP/LOCATION		
23. SHOP ORDER NO		24. PROD. CONT DATE		25. PURCHASING DATE		26. _____	27. CAUSE CO.
28. AS REOD. DATE		A. DISP. AUTHORITY DATE		D. _____ DATE		29. MRB #	30. FA NO.
31. AS REQD. DATE		B. _____ DATE		E. _____ DATE		32. ARB DATE	
33. AS REOD. DATE		C. _____ DATE		F. _____ DATE		34. CONT. ON PG.	

Nonforming Material Report

GE EXHIBIT DRD QA-022

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT:	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-022
TITLE OF DOCUMENT: *REPORT, PROCESS TRENDS				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION							
USE OF DOCUMENT: To detect nonconformance trends at receiving/inspection, fabrication, final assembly and test to identify shifts in quality levels so that timely corrective action can be taken.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES 15	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION..		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MG-004, Manufacturing Standing Instructions (MSI's) QA-007, Minutes, Material Review Board (MRB) QA-009, Plan, Quality Assurance Program QA-021, Report, Nonconforming Material (NCRM)				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR	
						UPDATE (FREQUENCY OR MILESTONE). Through J FACT	
						ESTIMATED EXPIRATION DATE	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> GROUP 1 <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> GROUP 2 <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> GROUP 3 <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROJECT DISCREET <input checked="" type="checkbox"/> UNCLASSIFIED <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> NOFORN <input type="checkbox"/> PUBLIC DOMAIN							
FORM OF DATA: KIND OF DATA. <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> OTHER </div> <div style="width: 30%;"> <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX </div> <div style="width: 30%;"> <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER </div> </div>				REFERENCE DOCUMENTS: NPC 200-2			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:		BY		BY		BY	
SUBMIT FOR APPROVAL TO:		BY		BY		BY	
Manager, Quality Assurance							

GE EXHIBIT DRD QA-022

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.
QA-02

The Process Control Engineer performs a daily review of all NCM reports and interfaces with Engineering, Manufacturing Planning and Supervision, Quality Assurance to determine assignables for defects and corrective action. Trend charts are maintained weekly from these determinations.

SPECIAL DISTRIBUTION: (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. The Nonconforming Material Reports are developed into trend charts for each area of manufacturing, inspection, test and assembly.
2. Each area is broken down into the major elements of activity, and trend charts are plotted with established control limits (upper and lower).
3. Responsibility for corrective action on nonconformance is assigned to Manufacturing, Engineering and Quality Assurance and each function is measured by the trend charts.
4. Trend charts and records are maintained on all operators and inspectors to measure performance and determine needs for additional training.
5. A summary of corrective action status is made each week to supplement the trend charts.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-023

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY:		DATE:		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE:	DRD PREPARED BY: T. F. Smyth		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-023
TITLE OF DOCUMENT: .*REPORT, QUALITY AUDIT						FOR DOCUMENT PREPARATION:		SUBTASK:		DRL ITEM:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION:		TASK OR SUBTASK:			
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT: <input type="radio"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION						ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
USE OF DOCUMENT: To measure the level of compliance to the established Quality Assurance Operating Procedures and Manufacturing Standing Instructions and to implement corrective action as necessary.						ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:			
						FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="radio"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input checked="" type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE) Through' J FACT ESTIMATED EXPIRATION DATE:			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="radio"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="radio"/> GROUP 3 <input type="radio"/> GROUP 4 <input type="radio"/> PROPRIETARY <input type="radio"/> PUBLIC DOMAIN		<input type="radio"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="radio"/> NOFORN			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER _____ _____ _____						KIND OF DATA: <input type="radio"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="radio"/> BULLETIN <input type="radio"/> CATALOG <input type="radio"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX		<input type="radio"/> INSTRUCTION <input type="radio"/> LETTER <input type="radio"/> LIST <input type="radio"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="radio"/> MINUTES <input type="checkbox"/> PLAN <input type="radio"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="radio"/> STANDARD <input type="radio"/> VOUCHER		REFERENCE DOCUMENTS: NPC 200-2	
						APPLICABLE STANDARDS:					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT				DATE		PREPUBLICATION PROOF				DATE	
SUBMIT FOR REVIEW TO: _____				_____		_____				_____	
_____ BY _____				_____		_____ BY _____				_____	
_____				_____		_____				_____	
_____				_____		_____				_____	
SUBMIT FOR APPROVAL TO _____				BY _____		_____ BY _____				_____	
Manager, Quality Assurance				_____		_____				_____	

GE EXHIBIT DRD QA-023

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:
QA-023

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Name of area or operation, date of audit, audited by_____
2. List the specific document for which the area was audited. (e.g. , QAOP).
3. Results of audit and recommendation for correction and/or improvement.
4. Assign responsibility for correction and/or improvement.
5. Establish completion dates for correction/improvement.
6. Reschedule audit period.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-024

VOYAGER DATA REQUIREMENT DESCRIPTION						DRD APPROVED BY		DATE.		DATA CATEGORY:	
ORGANIZATION ORIGINATING REQUIREMENT.		CODE: QA	OFFICE RESPONSIBLE FOR DRD:		CODE	DRD PREPARED BY: T. F. Smyth		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-024
TITLE OF DOCUMENT: *REPORT; QUALITY STATUS						ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:		DRL ITEM NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION		DRL NO.:		LEVEL NO.:	
						ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION.		DDL NO.:		FILE NO.:	
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION						ORGANIZATION RESPONSIBLE FOR WCUMENT STOWAGE:		NO OF COPIES: 10			
USE OF DOCUMENT: To compile and submit to the customer for information the system contractor performance for meeting "the quality requirements as supported by the various control documents.						ESTIMATED MANHOURS FOR SINGLE PREPARATION'		INFORMATION CUTOFF DATE OR MILESTONE			
						ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: MA-019, Report, Quarterly Written PC-002, Report, Contract Status QA-004, Manual, Quality Assurance Operating Procedures QA-009, Plan, Quality Assurance Program						FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> EI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE. SDR			
								UPDATE (FREQUENCY OR MILESTONE) Through launch			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED						<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NDFORN		ESTIMATED EXPIRATION DATE'	
FORM OF DATA: KIND OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> CHART <input type="checkbox"/> BROCHURE <input type="checkbox"/> LETTER <input type="checkbox"/> DIAGRAM <input type="checkbox"/> BULLETIN <input type="checkbox"/> LIST <input type="checkbox"/> DRAWING <input type="checkbox"/> CATALOG <input type="checkbox"/> LOG <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> CONTRACT <input type="checkbox"/> MANUAL <input type="radio"/> ILLUSTRATION <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> MEMORANDUM <input type="radio"/> MODEL <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> PLAN <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> SCHEDULE <input type="radio"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> HANDBOOK <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> OTHER <input type="checkbox"/> INDEX <input type="checkbox"/> VOUCHER						REFERENCE DOCUMENTS: NPC 200-2					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
SUBMIT FOR REVIEW TO: _____				DRAFT		DATE		PREPUBLICATION PROOF		DATE	
_____				BY _____		_____		BY _____		_____	
_____				_____		_____		_____		_____	
_____				_____		_____		_____		_____	
SUBMIT FOR APPROVAL TO _____				BY _____		_____		BY _____		_____	
Manager, Quality Assurance				_____		_____		_____		_____	

GE EXHIBIT DRD QA-024

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRO NO.:

QA-024

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. General narrative comment on the conformance of meeting the quality levels of the Voyager Program.
2. Summarized pictorial illustrations, graphs of the various measurements of the quality performance such as:
 - a. **MRB** activity
 - b. NCMR activity
 - c. Corrective actions
 - d. Tests
 - e. AuditsWith supplemental narrations on the progress in each area of activity.
3. Conclusions on the overall quality performance.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-025

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE	DATA CATEGORY				
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD	CODE	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.	DRD NO.: QA-025				
TITLE OF DOCUMENT: REPORT, SPECIAL MEASUREMENT AND TEST EQUIPMENT EVALUATION (COMPONENT)				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance/Test		TASK OR SUBTASK:	DRD ITEM NO.:				
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:				
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:				
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				USE OF DOCUMENT: When analysis of the quality levels indicate a shift in performance or accuracy, a special measurement and test equipment evaluation capability study is performed to verify the integrity and confidence in the test results,							
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-031, Specification, Special Test Equipment (STE) Component TE-001, Plan, Integrated Test TE-030, Procedure, Test Operating				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES: 10					
				ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:					
				ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER:					
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div> <input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN </div> <div> <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN </div> </div>				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input checked="" type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: SDR UPDATE (FREQUENCY OR MILESTONE): ESTIMATED EXPIRATION DATE:					
				One time							
				FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE <input type="checkbox"/> ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX </div> <div> <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER </div> </div>			
				APPLICABLE STANDARDS:							
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)											
DRAFT		DATE		PREPUBLICATION PROOF		DATE					
SUBMIT FOR REVIEW TO:											
		BY				BY					
SUBMIT FOR APPROVAL TO:		BY				BY					
Manager, Quality Assurance											

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-02!

Quality Assurance Engineer witnesses the special measurement and test equipment evaluation.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING ODL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Procedure **for** the verification that the equipment is compatible with desired resolution of measurement parameters.
2. Defines data requirements of the special test.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-026

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-026
TITLE OF DOCUMENT: REPORT, QUALITY ASSURANCE AUDIT SUMMARY				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance	TASK OR SUBTASK:	DRL ITEM NO.:	
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:	DRL NO.:	LEVEL NO.:	
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:	DRL NO.:	FILE NO.:	
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				USE OF DOCUMENT: To summarize status of compliance to the control documents as imposed on the systems contractor in areas of fabrication, inspection and testing of prime hardware.			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-023, Report, Quality Audit QA-027, Report, Quality Assurance Trend Summary				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO OF COPIES 10	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED <input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input checked="" type="checkbox"/> SEMI-ANNUALLY <input checked="" type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE) Thru launch	
						ESTIMATED EXPIRATION DATE:	
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER			
REFERENCE DOCUMENTS: NPC 200-2				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:		BY		BY			
SUBMIT FOR APPROVAL TO:		BY		BY			
Manager, Quality Assurance							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

DRD NO.:

QA-026

SPECIAL INSTRUCTIONS:

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

Submitted quarterly to Spacecraft System Office.

OUTLINE OF CONTENTS:

1. Summary of biweekly audits listing.
2. Name of area and/or operation (date of audits).
3. Findings, corrective action, completion dates and open corrective actions with promise dates of completion.
4. Overall rating for area audited and an indication of trends.
5. Analysis, conclusions and recommendations.

The summary extends to all areas of fabrication, assembly, inspection and test.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD QA-027

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:	DATA CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T.F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-027
TITLE OF DOCUMENT: REPORT, QUALITY ASSURANCE TREND SUMMARY				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR [REDACTED] REPRODUCTION:		DRL NO.:	
				ORGANIZATION RESPONSIBLE FOR [REDACTED]:		DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO. OF COPIES: 15	
USE OF DOCUMENT: Summarize and analyze all trend reports to determine the status of the overall fabrication, assembly, inspection and test performance and to determine need for emphasis on corrective action.				ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:	
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input checked="" type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-007, Minutes, Material Review Board (MRB) QA-009, Plan, Quality Assurance Program QA-021, Report, Nonconforming Material (NCRM) QA-022, *Report, Process Trends				ESTIMATED COST (\$) FOR SINGLE PREPARATION:		UPDATE (FREQUENCY OR MILESTONE) Thru launch	
						ESTIMATED EXPIRATION DATE:	
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFDNR			
FORM OF DATA: <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="checkbox"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER			
REFERENCE DOCUMENTS: NPC 200-2				APPLICABLE STANDARDS:			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO:		BY:		BY:		BY:	
SUBMIT FOR APPROVAL TO:		BY:		BY:		BY:	
Manager, Quality Assurance							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

The weekly quality trends are plotted on control charts; process averages are calculated and control limits established. Each specific area of performance, electronic shops, machine shops, sheet metal shop, assembly and test areas is plotted to indicate trends to control quality of the outgoing hardware. A summary analysis for each area is submitted to assign responsibility for control.

DRD NO:
QA-027

4

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Report summarizes the process parameters within a given area that are measured for performance trends.
 - a. Mechanical machine shop
 - b. Mechanical sheet metal shop.

Typical control parameters in these areas are, dimensional surface finish, welding concentricity, procedure. Defects are assigned responsibility by shop planning, engineering, inspection planning.
2. Electronic shops are controlled in the following areas:
 - a. Module or printed circuits
 - b. Black box assembly
 - c. Test

Typical control parameters in these areas are: accumulations, assembly and orientation, soldering, welding, procedural and handling and defects are assigned responsibility.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

GE EXHIBIT DRD &A-028

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE	DATA CATEGORY
ORGANIZATION ORIGINATING REQUIREMENT	CODE CM	OFFICE RESPONSIBLE FOR DRD	CODE	DRD PREPARED BY: T. F. Smyth	DATE 7/28/67	CONTRACT NO.	DRD NO. QA-028
TITLE OF DOCUMENT: REPORT, BREAK OF INSPECTION				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK	DRL ITEM NO.
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION		DRL NO.	LEVEL NO.
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION		DDL NO.	FILE NO.
				TYPE OF DOCUMENT <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION			
USE OF DOCUMENT To report status of the hardware affected by the "Break of Inspection" event delaying assembly and test schedules of the overall program.				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE		NO. OF COPIES: 15	
				ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER	
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input checked="" type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE): Thru Launch ESTIMATED EXPIRATION DATE:	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: CM-019, List, Break of Inspection per Contract End Item CM-026, Plan, Configuration Management QA-009, Plan, Quality Assurance Program QA-028, Report, Break of Inspection							
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED <input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN							
FORM OF DATA: KIND OF DATA <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="checkbox"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> CHART <input type="checkbox"/> BROCHURE <input type="checkbox"/> LETTER <input type="checkbox"/> DIAGRAM <input type="checkbox"/> BULLETIN <input checked="" type="checkbox"/> LIST <input type="checkbox"/> DRAWING <input type="checkbox"/> CATALOG <input type="checkbox"/> LOG <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> CONTRACT <input type="checkbox"/> MANUAL <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MODEL <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> ENGINEERING CHANGE <input type="checkbox"/> PLAN <input type="checkbox"/> COMPUTER CARD ORDER <input type="checkbox"/> PROCEDURE <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> REGULATION <input type="checkbox"/> MICROFILM (W/OR W/O CARD) <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> REPORT <input type="checkbox"/> OTHER <input type="checkbox"/> SCHEDULE _____ _____ _____ <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> HANDBOOK <input type="checkbox"/> STANDARD <input type="checkbox"/> INDEX <input type="checkbox"/> VOUCHER				REFERENCE DOCUMENTS: Configuration Management Manual CM 001BB001-1B			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT DATE PREPUBLICATION PROOF DATE							
SUBMIT FOR REVIEW TO: _____ _____ BY _____ _____ _____ _____ _____ _____ SUBMIT FOR APPROVAL TO _____ _____ BY _____ _____ _____ _____ _____ _____							
Manager, Quality Assurance							

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.

QA-028

In-Process Inspection makes out a Break of Inspection card with a copy to Quality Assurance Data Collection Center.

A DRD at the subcontractor/vendor level similar in content to this DRD is required.

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Summary of the Break of Inspection cards and their status.
2. Contains the action taken on specific hardware affected by the break of inspection.
3. Shows status of parts and substitutions by serial number of the affected parts.
4. Shows hardware status awaiting Break of Inspection action.
5. Lists hardware requiring Material Review Board action as direct result of the Break of Inspection event.
6. Identifies the reinspection required to progress hardware to next level of assembly or test.

See attached form.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

[illegible]

GE EXHIBIT DRD QA-029

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY		DATE:	CATEGORY:
ORGANIZATION ORIGINATING REQUIREMENT	CODE: QA	OFFICE RESPONSIBLE FOR DRD:	CODE:	DRD PREPARED BY: T. F. Smyth	DATE: 7/28/67	CONTRACT NO.:	DRD NO.: QA-029
TITLE OF DOCUMENT: *REPORT, FAILURE CATEGORIZATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR SUBTASK:	DRL ITEM NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:	LEVEL NO.:
				ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:	FILE NO.:
TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input checked="" type="checkbox"/> INFORMATION				ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO OF COPIES: 10	
USE OF DOCUMENT: Computerize and categorization of , and assigning responsibilities for failure with regard to: (1)class of equipment; (2) environmental test during which failure occurred; (3) test levels at instant of failure; (4) description of failure: (5) transducers (if any) records at time of failure.				ESTIMATED MANHOURS FOR SINGLE PREPARATION		INFORMATION CUTOFF DATE OR MILESTONE:	
				ESTIMATED COST (\$) FOR SINGLE PREPARATION		DATE DATA DUE TO USER:	
				FREQUENCY OF ISSUE: <input type="checkbox"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> 81-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> BI-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: HDR UPDATE (FREQUENCY OR MILESTONE) Thru launch	
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: QA-009, Plan, Quality Assurance Program QA-020 *Report, Failure Analysis QA-021, Report, Nonconforming Material (NCMR) RA-009, Plan, Reliability Program				ESTIMATED EXPIRATION DATE			
CLASSIFICATION: <input type="checkbox"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED				<input type="checkbox"/> GROUP 1 <input type="checkbox"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN <input type="checkbox"/> NOFORN <input type="checkbox"/> SPECIAL HANDLING <input type="checkbox"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET			
FORM OF DATA: <input type="radio"/> PRINTED DOCUMENT <input type="checkbox"/> CHART <input type="checkbox"/> DIAGRAM <input type="checkbox"/> DRAWING <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="checkbox"/> ILLUSTRATION <input type="checkbox"/> MODEL <input type="checkbox"/> RECORDING (TAPE OR DISC) <input checked="" type="checkbox"/> COMPUTER CARD <input type="checkbox"/> COMPUTER TAPE <input type="checkbox"/> MICROFILM (W/ OR W/O CARD) <input type="checkbox"/> OTHER				KIND OF DATA: <input type="checkbox"/> ABSTRACT <input type="checkbox"/> BROCHURE <input type="checkbox"/> BULLETIN <input type="checkbox"/> CATALOG <input type="checkbox"/> CONTRACT <input type="checkbox"/> DIRECTIVE <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> ENGINEERING CHANGE ORDER <input type="checkbox"/> REQUEST FOR ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> ENGINEERING CHANGE PROPOSAL <input type="checkbox"/> HANDBOOK <input type="radio"/> INDEX <input type="checkbox"/> INSTRUCTION <input type="checkbox"/> LETTER <input type="checkbox"/> LIST <input type="checkbox"/> LOG <input type="checkbox"/> MANUAL <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MINUTES <input type="checkbox"/> PLAN <input type="checkbox"/> PROCEDURE <input checked="" type="checkbox"/> REGULATION <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> SCHEDULE <input type="checkbox"/> SPECIFICATION <input type="checkbox"/> STANDARD <input type="checkbox"/> VOUCHER			
REFERENCE DOCUMENTS:				APPLICABLE STANDARDS			
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)							
DRAFT		DATE		PREPUBLICATION PROOF		DATE	
SUBMIT FOR REVIEW TO		BY		BY			
SUBMIT FOR APPROVAL TO		BY		BY			
Manager, Quality Assurance							

SPECIAL INSTRUCTIONS.

DRD NO.

QA-029

SPECIAL DISTRIBUTION. (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

Computer cards bear information regarding:

1. Failure report number
2. Equipment identification/name
3. Equipment categories
 - a. Subsystem
 - b. Class of equipment
4. Environmental test during which failure occurred
5. Test level at the instant of failure
6. Category of failed element (electrical, mechanical, etc.)
7. Transducer records at instant of failure, etc.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD)

VOYAGER DATA REQUIREMENT DESCRIPTION				DRD APPROVED BY:		DATE:		DATA CATEGORY:		
ORGANIZATION ORIGINATING REQUIREMENT:		CODE: QA	OFFICE RESPONSIBLE FOR DRD: CODE		DRD PREPARED BY: J. R. Gottshall		DATE: 7/28/67		CONTRACT NO.:	DRD NO.: QA-030
TITLE OF DOCUMENT: REPORT, QUALIFICATION STATUS					ORGANIZATION RESPONSIBLE FOR DOCUMENT PREPARATION: Quality Assurance		TASK OR DRL ITEM:			
					ORGANIZATION RESPONSIBLE FOR DOCUMENT REPRODUCTION:		DRL NO.:		LEVEL NO.:	
					ORGANIZATION RESPONSIBLE FOR DOCUMENT DISTRIBUTION:		DDL NO.:		FILE NO.:	
					TYPE OF DOCUMENT: <input type="checkbox"/> CONTROL <input type="checkbox"/> ACTION <input type="checkbox"/> REFERENCE <input type="radio"/> INFORMATION					
USE OF DOCUMENT: To report to the customer the status of the Type Approval Program.					ORGANIZATION RESPONSIBLE FOR DOCUMENT STOWAGE:		NO. OF COPIES: 10			
					ESTIMATED MANHOURS FOR SINGLE PREPARATION:		INFORMATION CUTOFF DATE OR MILESTONE:			
					ESTIMATED COST (\$) FOR SINGLE PREPARATION:		DATE DATA DUE TO USER:			
INTERRELATIONSHIP WITH OTHER DATA REQUIREMENTS: PC-013, List, Bidder QA-004, Manual, Quality Assurance Operating Procedures QA-009, Plan, Quality Assurance Program QA-024, *Report, Quality Status TE-165, Report, Test					FREQUENCY OF ISSUE: <input type="radio"/> ANNUALLY <input type="checkbox"/> SEMI-ANNUALLY <input type="checkbox"/> QUARTERLY <input type="checkbox"/> BI-MONTHLY <input checked="" type="checkbox"/> MONTHLY <input type="checkbox"/> SEMI-MONTHLY <input type="checkbox"/> 81-WEEKLY <input type="checkbox"/> WEEKLY <input type="checkbox"/> DAILY <input type="checkbox"/> OTHERWISE, AS SPECIFIED		PUBLICATION DATE: PDR			
							UPDATE (FREQUENCY OR MILESTONE): Thru launch			
							ESTIMATED EXPIRATION DATE:			
CLASSIFICATION: <input type="radio"/> SECRET <input type="checkbox"/> CONFIDENTIAL <input type="checkbox"/> SECRET RESTRICTED DATA <input type="checkbox"/> CONFIDENTIAL RESTRICTED DATA <input checked="" type="checkbox"/> UNCLASSIFIED					<input type="checkbox"/> GROUP 1 <input type="radio"/> GROUP 2 <input type="checkbox"/> GROUP 3 <input type="checkbox"/> GROUP 4 <input type="checkbox"/> PROPRIETARY <input type="checkbox"/> PUBLIC DOMAIN		<input type="checkbox"/> SPECIAL HANDLING <input type="radio"/> NASA DISCREET <input type="checkbox"/> JPL DISCREET <input type="checkbox"/> PROJECT DISCREET <input type="checkbox"/> NOFORN			
FORM OF DATA: KIND OF DATA. <input checked="" type="checkbox"/> PRINTED DOCUMENT <input type="radio"/> ABSTRACT <input type="checkbox"/> INSTRUCTION <input type="radio"/> CHART <input type="checkbox"/> BROCHURE <input type="checkbox"/> LETTER <input type="checkbox"/> DIAGRAM <input type="checkbox"/> BULLETIN <input type="checkbox"/> LIST <input type="checkbox"/> DRAWING <input type="checkbox"/> CATALOG <input type="radio"/> LOG <input type="checkbox"/> FILM (STATIC OR MOTION) <input type="radio"/> CONTRACT <input type="checkbox"/> MANUAL <input type="checkbox"/> ILLUSTRATION <input type="radio"/> DIRECTIVE <input type="checkbox"/> MEMORANDUM <input type="checkbox"/> MODEL <input type="checkbox"/> DISCLOSURE <input type="checkbox"/> MINUTES <input type="checkbox"/> RECORDING (TAPE OR DISC) <input type="checkbox"/> ENGINEERING CHANGE <input type="checkbox"/> PLAN <input type="radio"/> COMPUTER CARD ORDER <input type="checkbox"/> PROCEDURE <input type="checkbox"/> COMPUTER TAPE <input type="radio"/> REQUEST FOR ENGINEER- <input type="checkbox"/> REGULATION <input type="checkbox"/> MICROFILM (W/OR W/O CARD) ING CHANGE PROPOSAL <input checked="" type="checkbox"/> REPORT <input type="checkbox"/> OTHER <input type="radio"/> ENGINEERING CHANGE <input type="checkbox"/> SCHEDULE PROPOSAL <input type="checkbox"/> SPECIFICATION <input type="radio"/> HANDBOOK <input type="radio"/> STANDARD <input type="checkbox"/> INDEX <input type="checkbox"/> VOUCHER					REFERENCE DOCUMENTS: NPC-200-2					
					APPLICABLE STANDARDS					
REVIEWS AND/OR APPROVALS REQUIRED: (LIST IN ORDER OF SUBMITTAL)										
DRAFT		DATE		PREPUBLICATION PROOF		DATE				
SUBMIT FOR REVIEW TO: _____		_____		_____		_____				
_____		_____		_____		_____				
_____ BY _____		_____		_____		_____ BY _____				
_____		_____		_____		_____				
_____		_____		_____		_____				
SUBMIT FOR APPROVAL TO _____		_____		_____		_____				
_____ BY _____		_____		_____		_____ BY _____				
_____		_____		_____		_____				
_____		_____		_____		_____				
Manager, Quality Assurance		_____		_____		_____				

GE EXHIBIT DRD QA-030

VOYAGER DATA REQUIREMENT DESCRIPTION - 2ND SHEET

SPECIAL INSTRUCTIONS:

DRD NO.

QA-03

Submitted to the customer initially then monthly as part of Quality Status Report.

SPECIAL DISTRIBUTION: (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Matrix consisting of:
 - a. End item list to be qualified
 - b. Dates for
 - (1) Hardware availability
 - (2) Test facilities availability
 - (3) Test procedure availability
 - (4) Environmental tests
2. Narrative of :
 - a. Completed tests
 - b. Significant events
 - (1) Milestones
 - (2) Problems/solutions
 - c. Expenditures act/planned

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

40

10

SPECIAL INSTRUCTIONS:

DRD NO.:

QA-03

Cognizant Quality Assurance engineers will prepare the requirements section of the STE Specification to initiate design.

SPECIAL DISTRIBUTION (IF DISTRIBUTION IS NOT COVERED BY AN EXISTING DDL WRITE IN DISTRIBUTION BELOW)

OUTLINE OF CONTENTS:

1. Scope - outline of specification applicability.
2. Applicable documents - component specification, workmanship standards, etc.
3. Requirements - measurement tolerances, safety, operability, etc.
4. Test and verification - test requirements for the equipment prior to use with flight hardware, measurement studies, etc.
5. Preparation for delivery - special handling requirements.
6. Notes - as applicable.

(CONTINUE ON THIRD SHEET, IF NECESSARY, AND AFFIX TO THIS DRD.)

DOCUMENTATION RELATIONSHIP TREES

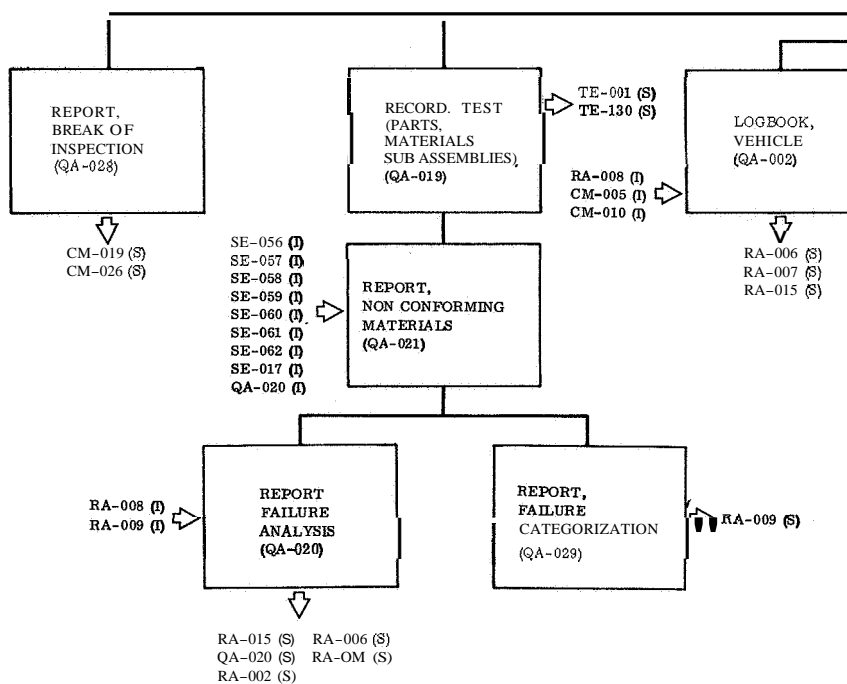
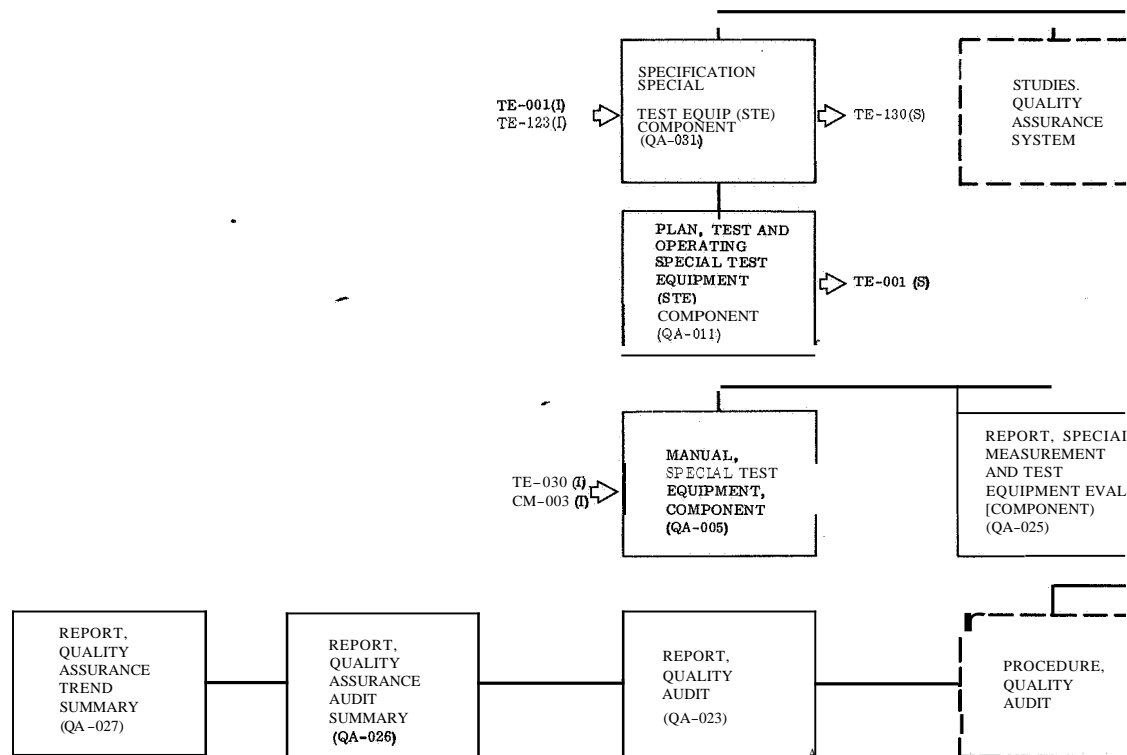
A documentation relationship tree has been prepared to show the relationships of data items within each functional category as well as their relationships across categories.

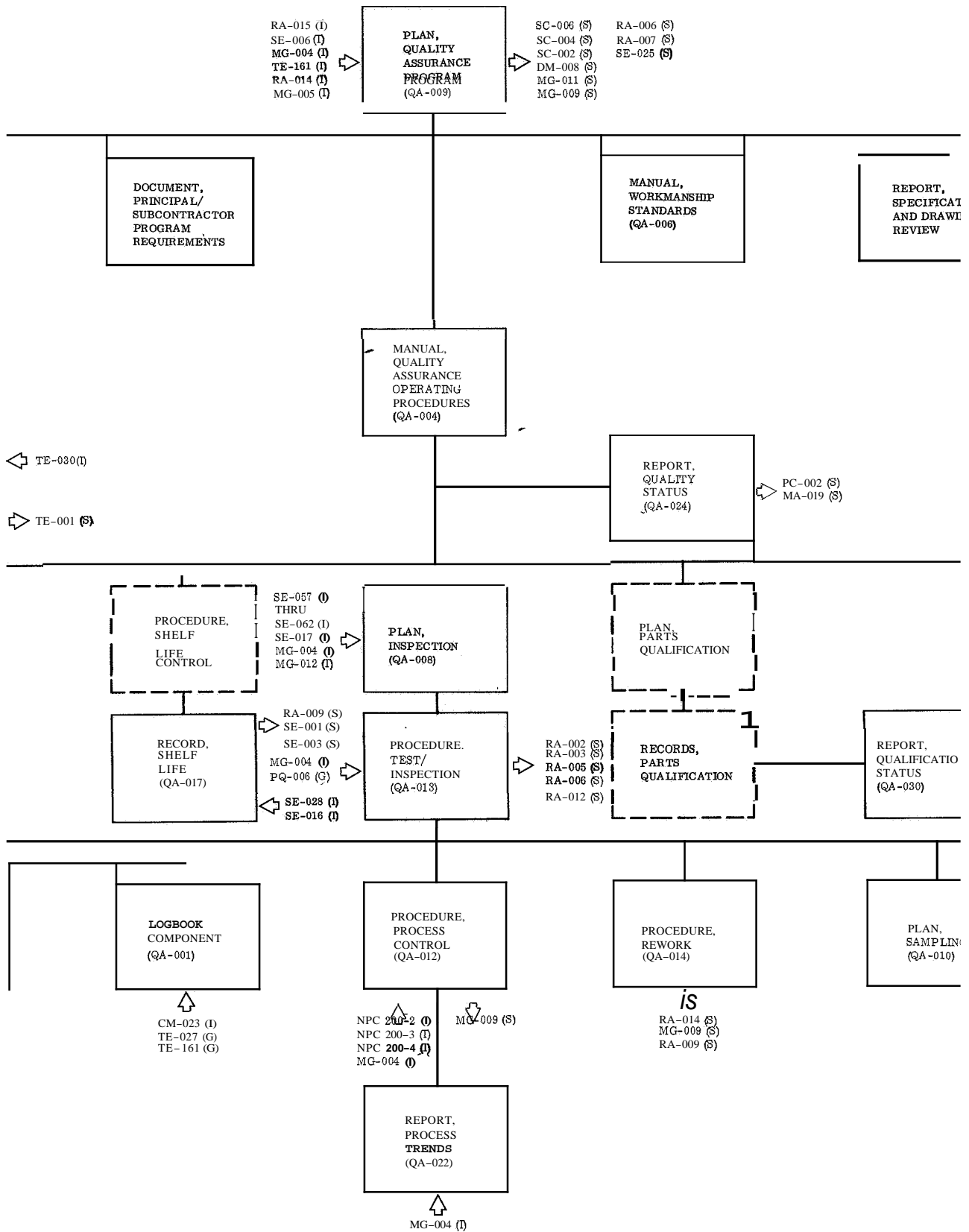
Relationships within each functional category are shown by constructing a tier pattern beginning with the top-level (or governing) data item and relating in descending order all data items within the category to this top-level data item. (The location of a data item at a given level on the diagram does not necessarily indicate the importance of that specific item but identifies and defines its relation to all other data items in that category.)

Relationships between data items in one category and data items in other functional categories are shown by (1) shaded arrows to indicate the direction of the relationship and (2) an alphabetic code to indicate the nature of the interrelationship as follows:

- a. Data items needed for preparation and/or support of the referenced item. (I)
- b. Data items that are supported or needed by **this** data item. (S)
- c. Data items that relate "to" and provide information of a general nature but are not required in an input or support role. (G)

Each data item appearing on the Data Item List (DIL) was examined and evaluated with respect to its contribution to, or dependence upon, data items appearing in other categories and is included in the diagrams. Additionally, certain data elements indicated in the user flow diagrams (but currently not identified as individual data items) have been shown within a dashed rectangle to clarify relationships.





DATA ITEM PHASING/FREQUENCY

Preparation requirements for Quality Assurance data items are shown in Quality Assurance Data Item Phasing and Frequency Matrix, Figure E-6. With the exception of control and administrative-type data items, Quality Assurance document needs have a direct relationship with the scope and complexity of the hardware program and range from piece part to system level.

The basis for compilation of these estimates are:

- a. Comparisons with other spacecraft systems, the makeup of which can be accurately described in terms of the total number of piece parts used and the percentages of non-electronic piece parts used. In the case investigated (a total of **11,740** piece parts, excluding OSE), the percentages were approximately **89** percent electronic and **11** percent non-electronic.
- b. Assume that each Voyager Spacecraft will contain approximately 100,000 piece parts.
- c. For each Voyager Spacecraft, assume it will be composed of:

28 Prime Equipment CEI's	149
36 Identification Item CEI's	
85 Engineering Critical Components CEI's (Configuration Management Plan, Phase IB)	149

Assume 11 Subassemblies for each Identification Item	11 x 36	396
---	----------------	------------

Assume 34 Subassemblies for each Engineering Critical Component	34 x 85	<u>2,040</u>
--	----------------	---------------------

Total Spacecraft Assemblies	2,585
-----------------------------	--------------

- d. Eight equivalent Spacecraft then would contain **8 x 2,585** testable assemblies **20,680**

- e. For OSE, AHSE and MDE. assume:

36 Prime Equipment CEI's	
135 Identification Items (CEI's)	
18 Engineering Critical Components (CEI's) (from Configuration Management Plan, Phase IB)	189

Assume:

11 Subassemblies for each Identification item (CEI's) 11 x 135	1,485
---	-------

Assume :

24 Subassemblies for each Engineering Critical Components (CEI's) 24 x 18	432
Total OSE, AHSE and MDE Assemblies	2,106
Assume two sets OSE	4,212
Total Spacecraft Assemblies	20,680
S/C, OSE, AHSE, MDE total assemblies	24,892

Assume:

Average of four tests per assembly (acceptance testing, Eng. Dev. Testing, T/A Testing, PTM Testing, Flight Accept. Testing and retesting requirements	568 tests
--	-----------

- f. From Para. E. 2. a the number of piece part test records can be calculated.

8 equivalent S/C x 89,000 + 20 percent excess	726,220
---	---------

assume an average of two test records for each electronic piece part	1,452,440
---	-----------

8 equivalent S/C x 11,000 non-electronic piece parts.

Assume an average of one test record for each part.	88,000
---	--------

Total S/C Piece Part Test Records	1,540,440
-----------------------------------	-----------

- g. Using as a basis the ratio of estimated drawings for the Spacecraft versus the OSE:

OSE will contain approximately 70,000 piece parts

Assume two sets of OSE will be produced	140,000
---	---------

Piece Part Test Record Total	1,680,440
------------------------------	-----------

The Quality Assurance Data Item Density Profile, Figure E-7, shows the distribution and density of data item preparation requirements. Requirements are shown by monthly

averages and reflect both formal and key informal data items. Of particular interest is the impact caused **by** data item QA-019, **Test** Records (Materials, Parts, Subassemblies).

PHASE C - SYSTEM DEFINITION

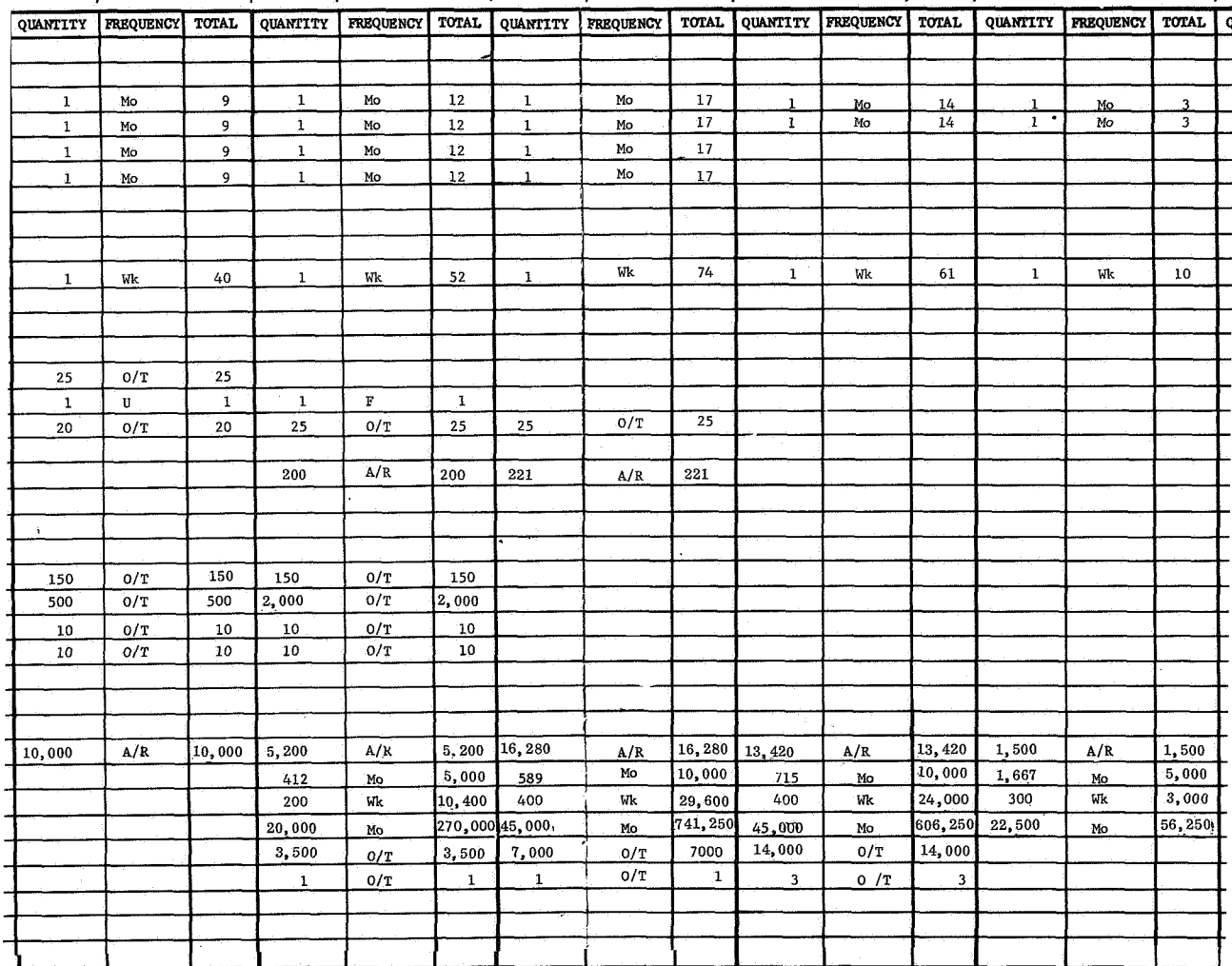
7 Me

QUALITY ASSURANCE
(QA)

- PDR 2 Mo -

(continued on page 2)

A	Annual	O/T	One Time	I	Initial
S/A	Semi-Annual	A/R	As Required	F	Final
WK	Weekly	U	update	N/R	New and 1
MO	Monthly	I/U	One Update	SDR	System D
B/W	Bi-Weekly	DA	Daily	PDR	Prelimin:
B/M	Si-Monthly	Q	Quarterly	HDR	Hard Des



6-6-1

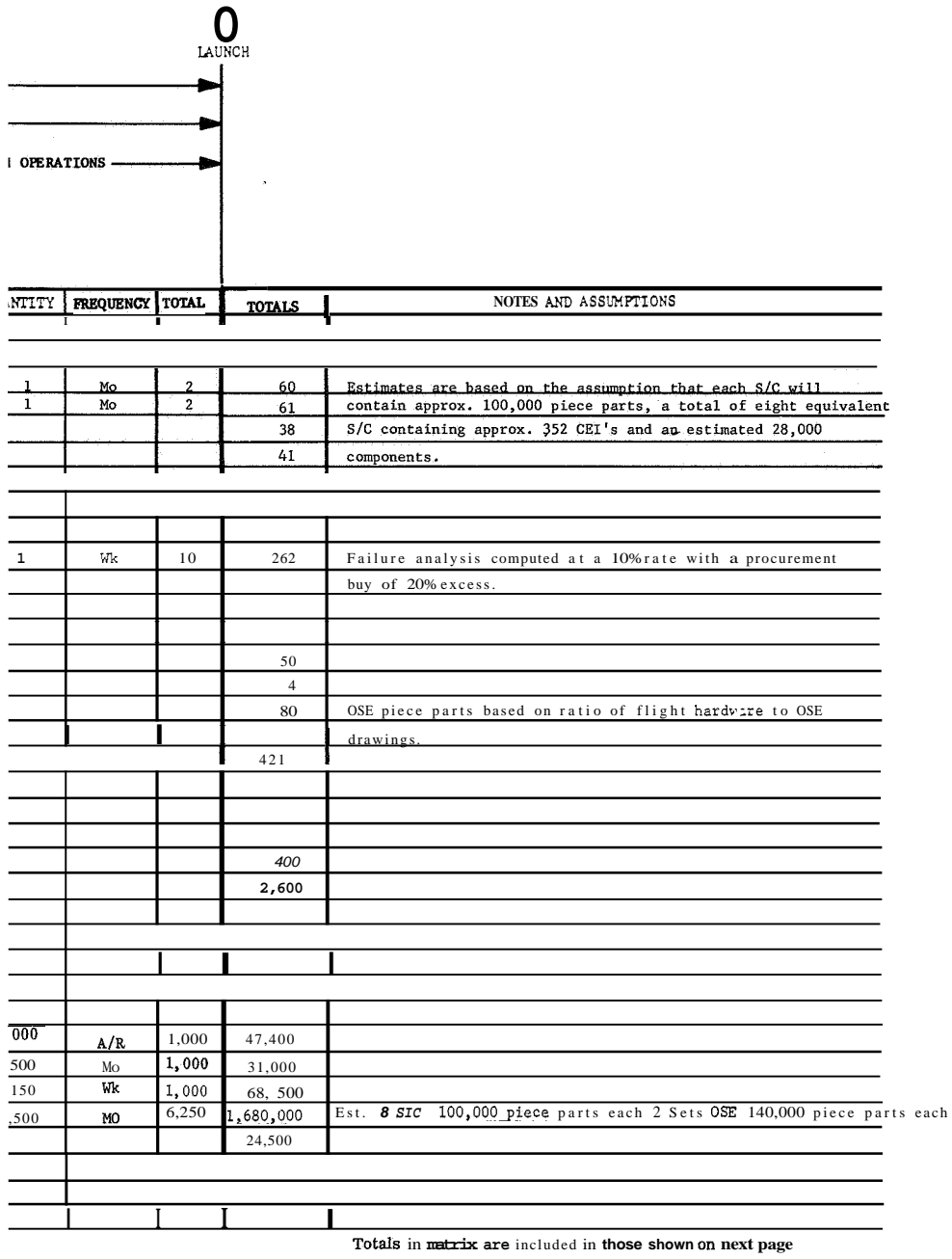
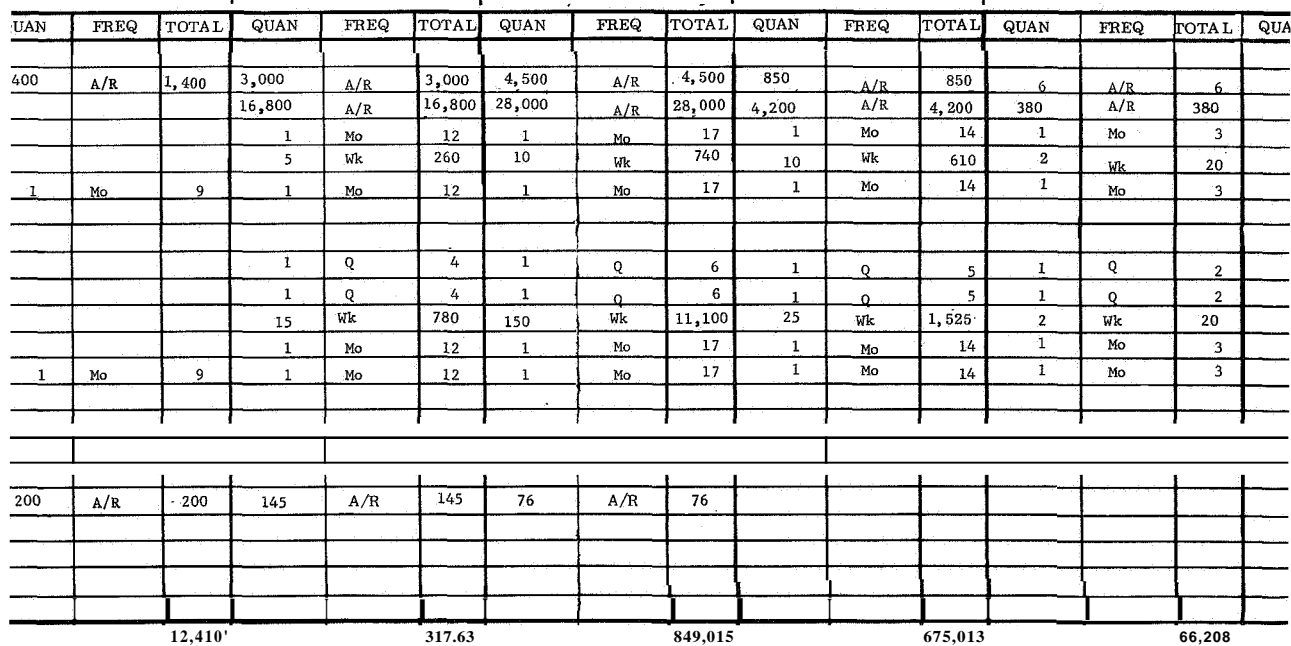


Figure E-6. Quality Assurance Data Item
Phasing and Frequency Matrix (Sheet 1 of 2)

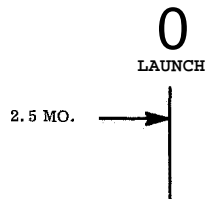
QUALITY ASSURANCE(QA) (Con't)			SDR			PDI		
DATA ITEM TITLE			3.5 MO.			3.5 MO.		
REPORTS	QUAN	FREQ	TOTAL	QUAN	FREQ	TOTAL		
QA-020 *Report, Failure Analysis								
QA-021 *Report, Nonconforming Material (NCMR)								
QA-022 *Report, Process Trends								
QA-023 *Report, Quality Audit								
QA-024 *Report, Quality Status	1	Mo	3	1	Mo	4		
QA-025 Report, Special Measurement & Test Equipment Evaluation (Component)	1	O/T	1					
QA-026 Report, Quality Assurance Audit Summary								
QA-027 Report, Quality Assurance Trend Summary								
QA-028 Report, Break of Inspection								
QA-029 *Report, Failure Categorization								
QA-030 Report, Qualification Status								
SPECIFICATIONS								
QA-031 Specification, Special Test Equipment (STE). Component								
TOTALS			6			264		

***Key Informal Data**

A	Annual	O/T	One Time	I	Initial
S/A	Semi-Annual	A/R	As Required	F	Final
WK	Weekly	U	update	N/R	New and Revised
MO	Monthly	I/U	One Update	SDR	System Design I
B/W	Bi-Weekly	DA	Daily	PDR	Preliminary Design
B/M	Bi-Monthly	Q	Quarterly	HDR	Hard Design Review



Critical Design Review
First Article Configuration Inspection
Mission Acceptance Review
Joint Flight Acceptance
Composite Testing



FREQ	TOTAL	TOTALS	
		9,756	Est. 25,000 assemblies, 4 Tests Per assy 10% failure rate
		49,380	
		46	
		1,630	
Mo	2	64	
		1	
Q	1	18	
Q	1	18	
Wk	10	13,435	
Mo	2	48	
Mo	2	57	
		421	
	9,782	1,930,336	

Figure E-6. Quality Assurance Data Item
Phasing and Frequency Matrix (Sheet 2 of 2)

6-8-2

6-8-2

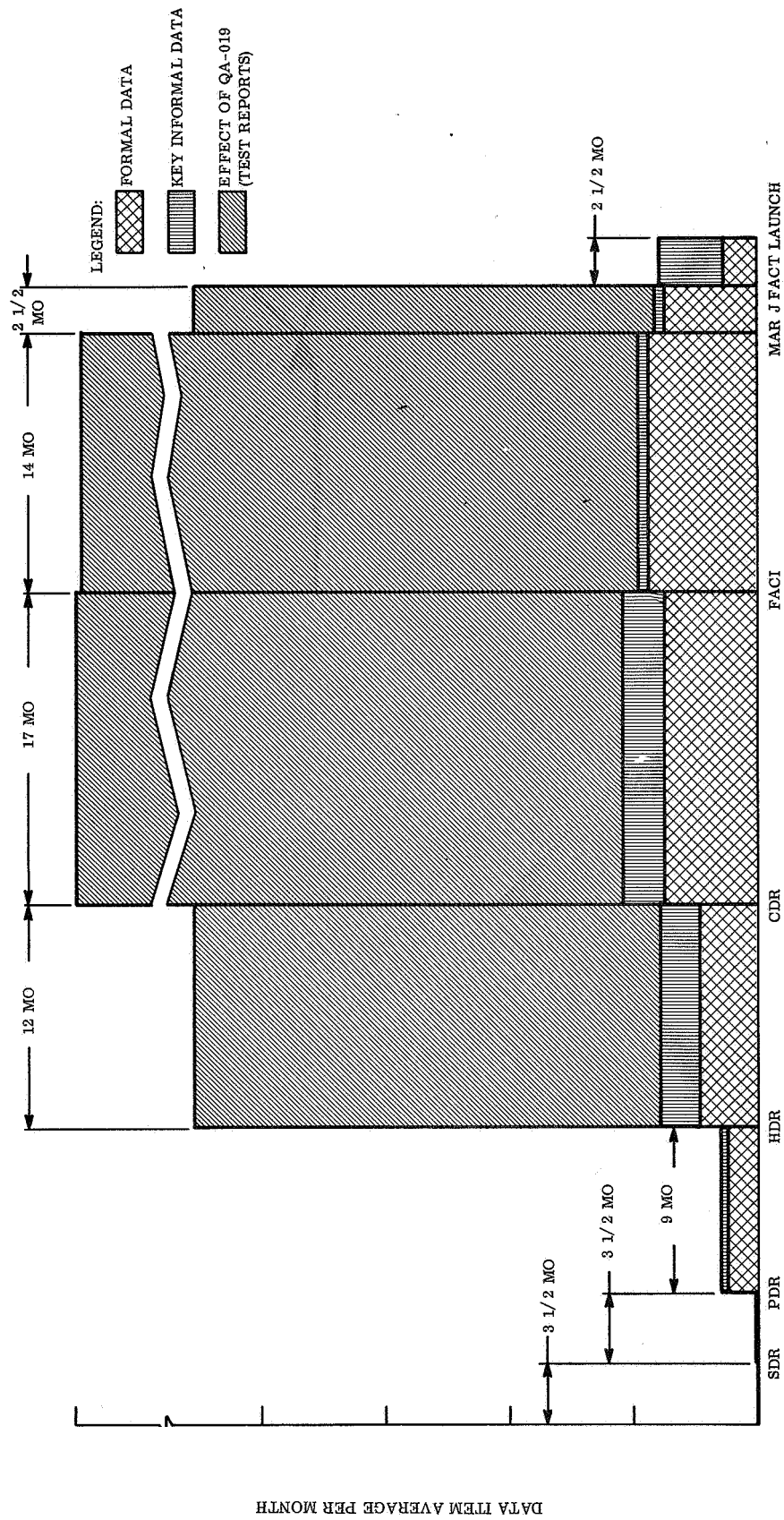


Figure E-7. Quality Assurance Data Item Density Profile